Alma Mater Studiorum - Università di Bologna

DOTTORATO DI RICERCA IN

Direzione Aziendale

Ciclo XXIV

Settore scientifico disciplinare di afferenza: SECS-P/08

Ownership, Multiple Blockholders and Performance: A study of the Indonesian Banking Industry

Presentata da: Dony Abdul Chalid

Coordinatore Dottorato
Prof. Salvatore Torrisi

Relatori
Prof. Federico Munari

Prof. Giuseppe Torluccio

Prof. Stefano Mengoli

Esame finale anno 2012

Intentionally left blank

ABSTRACT

The objective of this study is to provide empirical evidence on how ownership structure and owner's identity affect performance, in the specific case of the banking industry by using a panel of Indonesia banks over the period 2000–2009. The work is divided into two main parts. In the first one, we analysed the impact of the presence of multiple blockholders on bank ownership structure and performance. Building on multiple agency and principal-principal theories, we investigated whether the presence and shares dispersion across blockholders with different identities (i.e. central and regional government; families; foreign banks and financial institutions) affected bank performance, in terms of profitability and efficiency. We found that the number of blockholders has a negative effect on banks' performance, while blockholders' concentration has a positive effect. Moreover, we observed that the dispersion of ownership across different types of blockholders has a negative effect on banks' performance. We interpret such results as evidence that, when heterogeneous blockholders are present, the disadvantage from conflicts of interests between blockholders seems to outweigh the advantage of the increase in additional monitoring by additional blockholder.

In the second study, we conducted a joint analysis of the static, selection, and dynamic effects of different types of ownership on banks' performance. We found that regional banks, foreign banks and branch banks have a higher profitability and efficiency as compared to domestic private banks. In the short-run, foreign acquisitions and domestic M&As reduce the level of overhead costs, while in the long-run they increase the Net Interest Margin. Further, we analysed interest margin determinants, to asses the impact of ownership on bank business orientation. Our findings lend support to our prediction that the impact of interest margin determinants differs accordingly to the type of bank ownership. We also observed that banks that experienced changes in ownership, such as foreign-acquired banks, manifest different interest margin determinants with respect to domestic or foreign banks that did not experience ownership rearrangements.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

Introduction

1.1 Objectives of the dissertation

The connection between ownership and firm's performance has been widely studied since Berle and Means' work in 1932. They identified the separation between ownership as a central characteristic of the modern corporations' control and emphasized in the potential of divergence between owners' and managers' objectives. The work by Jensen and Meckling in 1976 formalized this separation issue and introduced principal-agent theory. They defined an agency relationship as a contract in which one or more persons (the principal) involved another person (agent) to perform some services and functions on behalf and delegating of duties and authority to the agent. Moreover, they argued that ownership can play significant role in determining the agency cost level. Previous literature has analysed, for instance, the impact of ownership structure on performance (e.g. La Porta, Lopez-de-Silanes & Shleifer, 1999; Lemmon & Lins, 2003), the influence of performances on ownership structure (e.g. Demsetz & Lehn, 1985; Demsetz & Villalonga, 2001), and the impact of major

shareholders' identities on performance (e.g. Pedersen & Thomsen, 2000; Pedersen & Thomsen, 2003; Villalonga & Amit, 2006; Cucculelli, 2009).

However, there are at least two reasons why studies on ownership are still important and worthwhile to conduct. Firstly, a rapid and diversified change has been characterizing ownership structures of firms around the world (Leaven & Levin, 2008). These changes have leaded to the creation of so-called "multiple blockholders" (MB) or "multiple large shareholders" arrangement, in which firm is jointly controlled by several blockholders. A significant number of such ownership arrangement can be found in Asian countries (Faccio, Lang, & Young, 2001), European countries (Leaven & Levin, 2008) and even in the U.S, where firms are traditionally believed to be in large part diffusely-owned (Dlugosz, Fahlenbrach, Gompers, & Metrick, 2006; Holderness, 2009). Although some previous works have tried to deal with the issue of MB, most of them have only focused on the distribution of shares (Attig, Ghoul & Guedhami, 2009; Konijn, Kräussl, & Lucas, 2011; Leaven & Levin, 2008; Maury & Pajuste, 2005). Studies on the concomitant presence of different types of ownership in one single firm and on the ways in which these peculiar structures of ownership impact on performance are still very limited (Bruton, Filatotchev, Chahine, & Wright, 2010).

Secondly, even though most of previous research has revealed that owner's identity affects performance (Pedersen & Thomsen, 2000; Pedersen & Thomsen, 2003; Villalonga & Amit, 2006; Cucculelli, 2009), little is still known about what actually happens in firms that experience ownership changes. Performance changes due to ownership changes are not only a matter of agency problems, as often claimed. It is important to consider that factors that determine changes in performance might be due to ownership rearrangements that ultimately translate into modifications of a bank's strategy. The mechanisms by which different types of owners may follow different kinds of goals besides profitability and thus pursue different strategies or portfolios are still largely left unexplored. Previous studies on the topic of ownership revealed that usually different types of

ownership have different objectives. As a consequence, they are likely to influence the strategic behaviour of their invested firms in different ways (Colpan, Yoshikawa, Hikino, & Del Brio, 2011; David, Yoshikawa, & Delios, 2010; Douma, George, & Kabir, 2006).

This dissertation aims to address such gaps by considering the presence of several blockholders, the identities of blockholders and the difference of business orientation among types of owners when analysing the relationship between ownership structure and performance. The core of the dissertation is constituted by two empirical papers addressing the above mentioned issues in the context of the Indonesian banking industry. Our first empirical study investigates the relationship between the presence of MB and firm performance by taking into consideration the role of ownership identity. In order to complement previous research (Attig et al., 2009; Konijn et al., 2011; Leaven & Levin, 2008; Maury & Pajuste, 2005), we examined the impact of the presence of MB and ownership dispersion of different types of blockholders on performance using a sample of 120 Indonesian banks over the period 2000-2009. In line with the predictions of multiple agency and principal-principal theories, we argue that the presence of multiple blockholders, with diverse and possibly conflicting interests, might lead to negative consequences in terms of performance. We are using a pooled ordinary least squares (OLS) model with year dummies and our model is calculated using the fully robust variance-matrix estimator, which allows for within-cluster (firm) correlation and heteroskedasticity. In the robustness check section of the paper, we also present the estimates computed with other regression models, in order to deal with specific econometric issues, such as the endogeneity and the unobserved firm effects.

Our second empirical study focuses on the impacts of different types of ownership on performances. We analyse the differences of performance, among different types of ownership: central government-controlled banks, regional government-controlled banks, domestic banks, joint venture-foreign banks and branch banks, by including variables that control for static, selection, and dynamic effects (Berger, Clarke, Cull, & Udell, 2005). We also analyse the impacts of ownership or

governance changes, such as: privatization (through public listing and foreign acquisitions), foreign acquisition of domestic private banks and domestic merger and acquisitions (M&As) on banks' performance. Further, in order to better understand the relationship between type of ownership and performance, we take into consideration differences in bank's business orientation, described by banks' characteristics such as risk aversion level, market approach (focus on retail consumers vs. wholesale consumers), and diversification among different types of ownership (Cerruti et al., 2007; Carbo-Valverde & Rodriguez-Fernandez, 2007; Williams, 2007). We analyse the ways in which different types of ownership might have different business orientation and how this orientation in turn, affects performance. Using the same research context with our first study, Indonesian banking industry, our data is constituted by a sample of 133 Indonesian banks over the period 2000-2009. We use the net interest margin, defined as the ratio of the spread between a bank's interest earnings and expenses to total earning assets, in order to measure the price of the intermediation services provided by banks (Williams, 2007). While, NIM determinants (in this study we focus on a bank's characteristics) refer to the factors that influence banks in setting the level of the NIM. We are using these NIM determinants as references for bank's business orientation. In analysing the impact of ownership and governance changes, we are using a pooled ordinary least squares (OLS) model which calculated using the fully robust variance-matrix estimator, which allows for within-cluster (firm) correlation and heteroskedasticity. In second analysis on NIM determinants, we are using panel data analysis (fixed- and random-effect model). We use also some control variables and year dummies as the robustness check.

The Indonesian banking industry constitutes our research context in both studies since it suitable with our research objectives. First of all, in the banking sector, it is particularly interesting to study those hybrid ownership structures that rose in the last two decades due to the dramatic changes in ownership arrangements occurred as a consequence of the joint forces of privatization/nationalization, restructuring and M&A waves, liberalization, as well as of other

4

environmental changes (Berger, et al., 2005). As a result, the banking industries worldwide (and particularly in emerging countries) have seen the emergence of a diverse set of ownership arrangements, in which multiple types of owners co-exist (The Economies, 2010). We can found such peculiar ownership configurations in Indonesia. Indeed, during the last twenty years, Indonesian banks have undergone remarkable changes of governance and their activities were marked by a number of events regarding bank governance adjustments such as public listing, foreign acquisitions and M&As. Thus, the current ownership structure of the Indonesia banking industry allows us to investigate various forms of banking ownership, starting from government-controlled banks, domestic private banks mostly controlled by families, join-venture banks and branch banks. In general, the Indonesia banking industry provides a unique data-set, well-fitted with our research goals.

Our first study contributes to the existing literature at least in three ways. First, we extended studies on multiple blockholders (e.g. Attig et al., 2009; Konijn et al., 2011; Leaven & Levin, 2008; Maury & Pajuste, 2005) by looking at the heterogeneity of blockholders. We are not only considering the way in which shares are distributed among blockholders, but also the ways in which they are distributed among different types of blockholders. We argue that the ways in which shares are distributed across large owners with different identities plays a significant role in determining the impact of governance arrangements on performance. We claim that focusing on the concentration/dispersion of shares, without considering the identities of blockholders, provides a partial perspective to the study of principal-agent or principal-principal problems. Second, we suggest that - given the increase of complexity and dynamism in ownership structures around the world, and in particular in emerging countries - traditional agency theory may not be sufficient to fully understand how internal governance systems affect firms' strategies and results. The recourse to multiple agency and principal-principal perspectives (Arthurs & Johnson, 2008; Connelly, Hoskisson, Tihanyi, & Certo, 2010; Hoskisson, Hitt, Johnson, & Grossman, 2002; Young, Peng,

Bruton, & Jiang, 2008) can provide a deeper insight to explain what happens in multiple blockholders firms. Moreover, these two perspectives not only assume that owners and managers may have divergent goals, but they assume that also different types of owners might have conflicting objectives. Third, referring to ownership studies in banking; our study underscores the importance of considering the distribution of ownership or ownership composition among blockholders. While the topic of ownership has been widely investigated in banking studies (Berger et al., 2005; Bonin, Hasan, & Wachtel, 2005; Caprio, Laeven, & Levine, 2007; Shehzad, De Haan, & Scholtens, 2010), most of the works so far have only focused on dominant or major shareholders, without taking into account the issue of ownership composition and especially the joint presence of blockholders with multiple identities. The current ownership structure, in which many banks - especially in emerging countries - are owned by several blockholders, alone signals the importance of taking into consideration ownership distribution among blockholders when examining the relationship between ownership and performance.

Our second study gives different contributions to the existing research, especially to the literature of banking studies. First, the knowledge of changes in bank's business orientation shades some more light on what happens to banks that undertake ownership or governance changes. Many previous studies tend to view governance changes only as a transfer from one type of ownership to another, attributing differences in performance, prior- and post-ownership change, only to the managerial abilities associated with each type of ownership (e.g Williams & Nguyen, 2005). Our analysis provides strong support for the notion that changes in ownership might shift a bank's business orientation and this, in turn, have an impact on a bank's performance. On this basis, information about the ways in which banks conduct their business after governance or ownership changes is crucial to gain a better understanding of the impacts of ownership changes on performance. Second, it extends studies on NIM determinants (Demirguc-Kunt & Huizinga, 2000; Carbo-Valverde & Rodriguez-Fernandez, 2007; Williams, 2007) by analysing how NIM

determinants differ depending on banks' ownership-types and in the presence of governance changes. The concept that determinants of banks' interest margins might differ by banks' ownership-type has not been properly explored in the literature so far. We suggest that the sources of interest-income and expenditures differ by banks' ownership. Thus, different banks' owners have different incentives, and consequently different strategies, when setting margins. Third, our study provides a broader picture on the impacts of different types of banks ownership on performance. Only a few studies (Berger et. al., 2005, Bonin et al, 2005, Williams & Nguyen, 2005) document the more nuanced, holistic view of state, foreign, and domestic ownership of banks. However, those studies did not fully consider some types of ownership which are common in emerging countries, such as regional banks and branch banks.

The introduction presented a preview of the findings of our two studies and offered an overall explanation on the novelty and contribution of our work. More detailed explanations on the summary of our results, positioning of the present research within the reference literature, factors that motivate its novelty and intended contributions of our work will be provided at the introduction part of each study.

1.2 Structure of the dissertation

The remainder of this dissertation is organized as follows. Chapter 2 consists in a literature review of ownership studies in the banking sector. In this chapter we will briefly review some of the research findings on the relationship between ownership and performances that are connected with our study. In particular, we will focus on the studies about the role of ownership's structure and identity on bank's performances. In the last part of this section we discuss about some gaps that are still left explored in the study of bank's ownership. Chapter 3 describes the Indonesian banking industry as a research context. We will illustrate the developments in the Indonesian banking industry before and after the Asian crisis in 1997-1998. We will describe the regulation and

institutional developments which took place in that period. We will pay special attention to the issue of banks' ownership in Indonesia, since this issue is directly related with our objectives of the study. Moreover, we also have observed significant evolutions on this side, especially related with changing in the types or identities of banks' major owners.

We explain each of our empirical studies in Chapter 4 and 5. Chapter 4 describes our first empirical study about hybrid ownership and performance. Chapter 5 describes second empirical study about ownership, business orientation and performance. Each chapter is constituted by several sections, respectively: the introductory part which explains the main objectives of the study, the summary of the findings and the contribution of the study; the literature review part which discusses previous works are related with our topic, a description of the positioning of our study with respect to the existing literature and an explanation on the ways in which we have developed our hypothesis; the data and methodology section with an illustration of the data and variables that we used and the methodology followed to analyse the data; a results section which discusses the results of our analysis, including a comparison between of our results with the ones underscored by previous literatures; a conclusive section which outlines the summary of research objectives and summarizes the findings revealed.

Finally, Chapter 6 draws the conclusions of both of our empirical studies, on the basis of the results and findings presented in the two previous sections (chapter 4 and chapter 5). In this chapter also discuss the limitations of our studies and provide some ideas for future research. The last part of the chapter draws some policy implication that can be extracted from the results of the study. The policy implications are consists of policy in the managerial level and industry/macro level.

CHAPTER 2

Theoretical background: ownership studies in banking

Even though banks are a quite unique organizational context, the problem of bank governance does not differ greatly from the governance problem of any other organization (Andres & Vallelado, 2008). As a matter of fact, the same core corporate-control mechanisms that influence the governance of non-financial firms also influence banks' operations (Caprio et al., 2007). There is a wealth of researches on bank governance and performance. In order to contribute towards a better understanding of the causes underlying differences in performance, several studies in banking are have taken into consideration a set of different governance proxies such as ownership and/or change of it (e.g. Berger et. al, 2005; Bonin et al., 2005) merger and acquisitions (e.g., Vander Vennet, 1996); ownership concentration and owner's identity (e.g. Iannotta, Nocera, & Sironi, 2007); the composition of Board of Directors (BoD) and changes of it (e.g. Crespi, Garcia-Cestona, & Salas, 2004).

Although a wide arrange of perspectives has been used to investigate corporate governance studies in the banking sector, the point of view of ownership has probably become the central one. Firstly this is due to the fact that ownership transfers have become the major force of governance changes that characterized the last two decades and shaking the banking industry around the world (Berger et al., 2005). Secondly, widely studied governance changes in the banking sector have mostly concerned transition or developing countries, where laws of investors' protection are still underdeveloped. In such institutional contexts ownership has become the main corporate governance form to deal with the agency problem that existed in firms (Young et al., 2008). In this chapter, we will briefly review some of the research findings on the performance effects of corporate governance in banking, with a special attention on the role of ownership structure and identity.

The rest of the chapter is organized as follows. First, we will discuss about the relationship of ownership structure and performance. We will also present previous literature on ownership structure and performance that has been done in banking area. The next section of this chapter will focus on literatures about ownership identities and performances in banking studies. We will discuss three main ownership identities that were widely studied in banking: government ownership, foreign ownership and domestic private ownership. The last section of this chapter will present a critical review on ownership studies in banking. Additionally, we will outline some issues that need to be explored since the available literatures still provide unclear answers.

2.1 Ownership structure and bank performance

2.1.1 Ownership Concentration and Performance

Studies on ownership emerge with the seminal work of Berle and Means (1927) that identified the separation between ownership as a central characteristic of the modern corporation's control. Berle & Means (1927) emphasize the potential of divergence between owners' and managers' objectives

arguing that this separation will create opportunity for managers to expropriate corporate resources for their own benefits. The work by Jensen and Meckling in 1976 formalized this issue and introduced "principal-agent theory" or "shareholder model" based on the premise that managers, as agents of shareholders (principal), can engage in decision making and behaviours that may be inconsistent with the maximization of shareholder wealth. Jensen and Meckling (1976) defined an agency relationship as a contract in which one or more persons (the principal) involved another person (agent) to perform some services and functions on his/her behalf, delegating duties and authority to the agent. They used the empirical models drawn from theory of agency and finance to develop a theory of ownership structure of the firm.

In general, agency theory is concerned with resolving two problems that can occur in agency relationships (Eisenhardt, 1989). The first is the agency problem that arises when the goals of the principal and agent are in conflict and it is difficult or expensive for the principal to verify what the agent is actually doing. Second, there is a problem of risk sharing that arises when the principal and agent have different attitudes toward risks. Ownership arrangements can be means to address such problems, since the way in which ownership is distributed among shareholders could determine the ability of shareholders to control firm's management and make sure that the management conducts its activities in order to achieve the maximum of shareholders wealth (Jensen & Meckling, 1976). In addition, the size of shares influences the incentive of shareholders to conduct a monitoring function (Shleifer & Vinshy, 1997).

In the corporate finance and management literatures, ownership arrangements become one of the central issues underscored in examining the relation between ownership and performance. Scholars have tried to discern, for instance, whether ownership concentration has an impact on performance. More specifically, the key question addressed is what kind of ownership - concentrated or dispersed - brings a better impact on firm performance or value. The results of ownership studies are still conflicting and different theoretical perspectives have emerged. On the

one hand, the concentration ownership is viewed to bring a positive impact on performance. According to the incentive-based view (Shleifer & Vishny, 1986), shareholders with a large cash flow ownership have an incentive to closely monitor a firm's performances, in order to potentially mitigate the principal-agent problems that might arise between managers and shareholders. This view argues that the increase in concentration has a positive impact on performances since the increase in concentration means that owners have more motivation and ability to control managers. In line with this view, several studies have found a positive correlation between a firm's value and cash-flow ownership of large shareholders (Pedersen & Thomsen, 2000; Claessens, Djankov, Fan, and Lang, 2002; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2002b). On the contrary, the entrenchment-based view, formalized by Stulz (1988), maintains that the increase in ownership concentration could produce a negative impact on a firm's value and performance. Large blockholders may pursue their own interests at the expenses of other minority shareholders (Shleifer & Vishny, 1986; 1997). Consistently with this argument, scholars have proposed that a firm's value falls (decreases) when control rights exceed cash flow rights of large shareholders (Claessens, et al. 2002; Morck, Stangeland, & Yeung, 2000).

Unlike early studies on ownership that used United States (US) and United Kingdom (UK) as research contexts, where most of the firms are characterized by a widely held ownership type, other studies in different countries found different results. Study by La Porta and others (1999) showed that ownership in public firms outside the US and UK is concentrated in the hands of very few major shareholders, typically members of wealthy families. Moreover, Claessens, Djankov, and Lang (2000) found that more than two-thirds of East Asian firms are controlled by a single shareholder. Those major owners tended to use controlling devices, such as top-down chain of control pyramids and multiple class shares, to secure control rights. Since major owners appeared to be able to control management, this type of ownership raised a new problem and in particular it was found that control power enabled controlling shareholders to gain private benefits at the expenses of

minority shareholders (Volpin 2002; Lemmon and Lins, 2003). In addition, East Asian firms also showed a sharp divergence between cash-flow rights and control rights - that is, the largest shareholder was often able to control a firm's operations with a relatively small direct stake in its cash-flow rights. Claessens et al. (2002), using data for 1,301 publicly traded corporations from eight East Asian economies (Hong Kong, Indonesia, South Korea, Malaysia, the Philippines, Singapore, Taiwan, and Thailand), found that relative firm's value - as measured by the market-to-book ratio of assets -increases with the share of cash-flow rights in the hands of the largest shareholder. This result is consistent with previous studies on the positive incentive effects associated with increased cash-flow rights in the hands of one or a few shareholders. However, they found that the entrenchment effect of control rights has a negative effect on firm value.

One of the factors is considered to have an important role in deciding the impact of ownership structure is the legal protection of shareholders. The legal protection of shareholders is the backbone of any corporate governance system since it will determine the ability and the incentives of shareholders in monitoring the firms. For instance, minority blockholder owners can exercise their rights only in countries with a developed legal system, whereas majority ownership is a more viable option in countries with a weak legal system (La Porta et al., 1999). As a result, differences in legal protection of shareholders explain a substantial part of the differences in the ownership structures across countries (Shleifer & Vishny, 1997). Nevertheless, La porta et al, (1999) used the data on ownership structures of large companies in the 27 richest economies to investigate the fundamental controlling shareholders of these firms. An empirical analysis of the sample revealed that, except in economies with very good shareholder protection, few of these firms were widely held.

2.1.2 Ownership Concentration in Banking Studies

Contradictions in the results gained in the study of ownership concentration raised a number of critical questions regarding the relation between different forms of ownership and performance encouraging many scholars to apply the same research question in specific contexts, for instance in the banking industry. Using an approach similar to the one adopted for ownership studies in corporate finance, some empirical studies in the banking area tried to provide evidences on the way in which ownership concentration had an influence on banks' value and performances. There are at least two most common ways used to capture the ownership concentration variable in banking studies. The first one is to consider the number of shares that are owned by majority or largest shareholders (e.g Caprio et al., 2007; Laeven and Levin, 2009). The second way is to use a dummy variable that represents banks with concentrated ownership (e.g. Boujelbene and Zibri, 2009; Shehzad, De Haan, and Scholtens, 2010). A bank is said to exhibit a concentrated ownership if there is at least one large shareholder within the bank's ownership structure. A large shareholder is usually defined as an owner who has a significant amount of shares (using 10%, 20% or 50% threshold).

Studies about the impact of ownership concentration on performance, in banking have also provided contradictive results, just as the ones collected in corporate finance studies. On one side, some researches revealed the positive impact of ownership concentration on bank's performance (e.g. Caprio et al., 2007; Iannotta et al., 2007; Kwan, 2004; Shehzad, et al., 2010). Kwan (2004), using US banking data, found that publicly traded banks tend to be less profitable and incur higher operating costs than privately held similar bank holding companies. Caprio et al. (2007), using data of 244 banks from 44 countries, found that cash-flow rights by the controlling owners have a positive impact on a bank's valuations. Shehzad et al. (2010), using data of 500 banks from 50 countries, found that banks with concentrated ownership have a lower non-performing loans ratio. As for Europe, Iannotta et al. (2007) used a sample of large banks from 15 European countries and

they evaluated the impact of alternative ownership forms (government, mutual, private), together with the degree of ownership concentration, on performance and risk. The authors observed that higher levels of ownership concentration increased loans' quality and lowered the risks.

However, other ownership concentration studies conducted in the field provided a very different picture (e.g. Saunders, Strock, & Travlos, 1990; Demsetz, Saidenberg, & Strahan, 1997; Laeven and Levin, 2009; Boujelbene and Zibri, 2009). Saunders et al. (1990), using US banking context, found that stockholder controlled banks exhibit significantly higher risk taking behavior than managerially controlled banks during the 1979-1982 period. However, Demsetz et al. (1997), using the US banking context also, found that the relationship between ownership structure and risk is significant only at low franchise value banks. The more recent work by Laeven and Levin in 2009, using data regarding 279 banks from 48 countries, found that cash-flow rights of the largest shareholders have a negative relationship with a bank's bankruptcy risk. Moreover, Boujelbene and Zibri (2009) found that ownership concentration increases banks' risk-taking behaviours.

One important aspect to be acknowledged when trying to understand potential mechanisms behind bank corporate governance is bank is different from non-bank firm, in terms of regulations and degree of opacity (especially due to moral hazard and asymmetric information), and its making empirical evidence based on non-bank samples not directly applicable in banking settings (Laeven & Levine, 2009). Banks' balance sheets are also opaque for investors because the quality of loans and investment portfolios are difficult to assess. This makes owners' ability and incentives become more crucial rather than in non-bank firms. Furthermore, previous researches have shown that the ability and incentives for shareholders to monitor banks depends on how effectively their rights are protected (Levine, 2004; Adams and Mehran, 2008; Adams and Ferreira, 2009). This perhaps explains why banks with dispersed (unconcentrated) ownership structures are more prevalent in countries with stronger shareholders' protection laws. Some studies of corporate governance in banking have examined how risk and performance are affected by investor protections' laws,

banking regulations and the extent of ownership concentration. With these regards, two recent cross-country studies brought two notable contributions. Caprio et al. (2007) noted that banks typically do not have dispersed ownership, but instead, they are often controlled by large shareholders in terms of families, foundations or the State. Concentrated ownership structures appear to increase valuation, while weak shareholder protections' laws reduce banks' values. Building on Caprio's insights, Laeven and Levine (2009) found that risks are higher for banks that have large owners with substantial cash flow rights. However, this effect is weaker in countries with strong shareholders' protection laws. The authors argue that large cash flow rights are crucial in reducing the adverse effects on bank valuations associated with weak shareholder protection laws.

2.2 Owners' identity and bank performance

Another stream of ownership researches in banking analyses the relation between type of ownership and performance. These works explore whether different types of ownership lead to different performance levels or whether changes in ownership types have an impact on banks' performance. Within this framework, there are three types of ownership that have traditionally received central attention: government or state ownership, foreign ownership and the domestic large shareholder or family ownership.

2.2.1 Government Ownership

Government ownership in the banking sector has been consistently declining since 1970 and this pattern continued over the last ten years as a consequence of the many shifts in the economic system (e.g. east European countries). However, government ownership of banks still exists in the banking sector in several countries characterized by poor economics conditions, more interventionist and less efficient governments, less secure property rights (Barth, Caprio, and Levine, 1999; La Porta, et al., 2002a). In fact, in several countries the government ownership in

banking industry has increased, since the impact of financial crises lead to the nationalization of some banks. For instance, this is what happened in several Asian countries during the 1997-1998 financial crises (e.g. Japan, Korea, Indonesia, Thailand, and Philippines). The nationalization of banks as a consequence of a crisis has also happened in developed countries, when the role of government was relatively limited. For example, this is what happened in the US (e.g. JP Morgan, Bradford & Bingley and Citibank) and UK (e.g. Northern Rock, RBS, Lloyds and HBOS) when the financial crisis erupted in 2008-2009. Although some banks were re-privatized, however this process takes some time, and thus we can still find a significant presence of government banks.

One of main arguments supports the presence of government ownership in the banking sector was proposed in 1962 by Gerschenkron. He argued that governments can play a major role in the financial and economic development of countries in which economic institutions are not sufficiently developed for private banks to play this role. However, several studies grounded in developing countries found that the presence of State-owned banks in the banking sector has an unfavourable impact on the banking sector and on the economy as a whole. Indeed, the domination of state-owned banks could determine a set of troublesome consequences such as: reduced access to credit, contracted financial system development and slow economic growth (e.g., La Porta et al., 2002a; Beck, Demirguc-Kunt, & Maksimovic, 2004; Barth, Caprio, and Levine, 2004; Galindo and Micco, 2004). Using data of ten of the largest banks in 92 countries, La Porta et al. (2002a) showed that in 1970 a higher level of government ownership of banks was associated with slower subsequent financial development and lower economic growth. Barth et al. (2004) examined the relationship between state ownership and development measures in the banking sector. Using banks' data from 107 countries, they found that government ownership of banks is negatively related to favourable banking outcomes, and positively related to corruption.

Regarding the performance of government-controlled banks, studies found that government-controlled banks have inferior performance if compared to other banks characterized by different

types of ownership (Vining and Boardman, 1992; Berger et al., 2005; Dinç, 2005; Micco, Panizza, and Yañez, 2007; Sapienza, 2004). Micco et al. (2007) examined the relationship between bank ownership and bank performance in 119 countries. They found that, in developing countries, state-owned banks had lower profitability, higher costs, higher employment ratios, and poorer assets' quality than their domestic counterparts.

The literature on ownership in the banking industry revealed at least three main reasons why government-controlled banks perform poorly if compared to other types of bank. *Firstly*, State-owned banks are burdened by many objectives related with economic and social development. Hence, the objective of profit maximization is often neglected because sometimes government-controlled banks have to sacrifice their profit orientation in order to fulfil their roles of agents of economic development (La Porta et al., 2002a). *Secondly*, government-controlled banks are vulnerable to political intervention. Some of the bank's asset portfolios may be allocated to obtain certain political objectives (e.g. obtaining votes, bribing office holders) and, the pursuit of such objectives, inevitably hampers bank's efficiency (Sapienza, 2004). Micco et al. (2007) found that the performance differences between public and private banks gets wider during election years. This result also supports the hypothesis that political concerns are the real hidden drivers of these results. According to Sapienza (2004), lending behaviour of State-owned banks in Italy is affected by electoral results of the party affiliated with the bank. In addition, Dinç (2005) shows that government-owned banks in emerging markets significantly increase their lending in election years relatively to private banks. The bulk of the evidences also showed how political intervention brings a negative impact on bank's performances (Micco et al., 2007; Sapienza, 2004; Dinç, 2005). *Third*, the appointment process of management and other staff usually gives preference to people with political influence rather than to people who actually have the ability to perform. The lack of incentives from the government to monitor managerial behaviour is leading to ample levels of managerial discretion. Moreover, the assessment of related lending practices by banks is low since

these banks generally operate with government subsidies (La Porta, et al., 2002a).

The relatively poor performances of government-controlled banks and the liberalization process have increased the privatization activities in several emerging countries (Megginson, 2005). As privatization processes began to spread widely, the number of researches concerned with privatization and performance started to rise[1]. This stream of research mainly investigates the effects of the privatization on bank performance using individual countries or cross-countries as a research context. Countries that have been investigated concerning the privatization process of banks include: Argentina (Berger et al., 2005), Brazil (Beck, Crivelli, Summerhill, 2005a; Nakane and Weintraub, 2005), Mexico (Haber, 2005), and Nigeria (Beck, Cull, Jerome, 2005b). Studies of privatization using cross-country data have mainly examined privatization processes in transition countries (e.g. Bonin et al., 2005 using Eastern Europe countries) or countries hit by an economic crisis (e.g. Williams and Nguyen, 2005 using East Asia countries). These studies generally highlight that at least one indicator of bank performance improved following privatization, although some measures showed no change. Some researches found signs of greater prudence in lending after privatization as shown in the decrease of non-performing loans (e.g. Beck et al., 2005b; Haber, 2005).

One interesting question regarding privatization processes is to whom the ownership of privatized banks is transferred to. For instance, it seems that foreign investors' participation is more likely to bring a positive impact on bank performance rather than private domestic participation. Boubakri, Cosset, & Fischer (2005) highlight the importance of privatizing banks by selling them to strategic foreign investors. They found that newly privatized banks controlled by local industrial groups became more exposed to credit-risk and interest-rate risk after privatization. On the contrary, privatized banks controlled by foreign investors proved to be more efficient in terms of overhead costs. In many of the transition nations, control of many of the privatized banks shifted from state

---

[1] The impact of bank privatizations on bank performance has been well documented in the literature, as summarized in various papers (Clarke, Cull, and Shirley, 2005; Megginson, 2005)

ownership to foreign ownership. The entry of foreign banks after privatization generally played a positive role by making domestic banks more efficient in terms of overhead costs and spreads, although not always it carried out a significant effects on the profitability levels (Berger et al., 2005; Boubakri et al. , 2005; Micco et al., 2007).

2.2.2 Foreign Ownership

The second type of ownership that has received a great deal of attention in the banking literature is foreign ownership. The bulk of the studies documented an impact of foreign banks' presence on the banking industry performance, especially in emerging countries. From several previous studies we can summarize the impacts of foreign banks' entry in emerging markets. On one side, foreign ownership could give several benefits such as (Claessens, Demirgüç-Kunt, & Huizinga, 2001; Micco, Panizza, & Yañez, 2004; Unite and Sullivan, 2003): 1) Increase soundness, because usually the foreign parent banks belong to well regulated financial systems. 2) Increase the level of competition in the banking sector that could lead to higher efficiency. 3) Provide greater access to capital and liquidity that bolsters the strength of banks' balance sheets and the average amount of loans 4) Transfer to local banks the skills and technology that enhance risk management 5) Fortify emerging market financial systems by encouraging higher standards in auditing, accounting and disclosure, credit risk underwriting, and supervision. 6) The allocation of credits to the private sector may be improved since it is expected that the evaluation and pricing of credit risks will be more sophisticated. 7) It is expected that foreign banks will provide more stable sources of credit since they may refer to their parents for additional funding and they have easier access to international markets. Thus, domestic financial markets will be less vulnerable to domestic shocks. 8) Foreign banks may reduce the costs associated with recapitalizing and restructuring banks in the post-crisis period.

On the other side, there are also some studies that reveal the costs of foreign banks' entry,

such as (Barajas, Salazar, and Steiner, 2000; Hellmann, Murdock, and Stiglitz, 2000): 1) If the franchise value of domestic banks decreases with foreign banks' entry, they may have an incentive to take on greater risks. 2) Access to credit may be impaired for some sectors of the economy. 3) Foreign banks may increase financial instability by pulling out of host countries or by contagion from problems in the home country. 4) Since foreign banks have different priorities and business focuses, their lending patterns tend to ignore domestic priorities. Moreover, it is still not clear if the presence of foreign banks has a positive or negative impact on the possibility to access credit for the private sector. For example, Clarke, Cull, and Martínez-Peria (2001) showed that foreign banks' penetration improves access to credits. While Detragiache et al. (2006) reported the opposite result, that the presence of foreign banks reduces the access to credits for the private sector.

Another stream of study related with foreign ownership, is more focused on the comparison of performance between foreign banks and other types of banks (e.g. government or private domestic banks). In terms of performance of foreign banks compared to other types of banks, some studies conducted on this issue showed contradictive results which seem to be highly related with the specific context that is used in each of the studies. For instance, the work by Claessens et al. (2001) empirically documents that foreign banks are more profitable than their domestic counterparts in developing countries, but the opposite is true in developed markets. In much of the same vein, Demirgüç-Kunt and Huizinga (1999) study banks in 80 countries over the 1988-1995 periods and find that foreign banks have higher margins and profits than domestic banks in developing countries, but the opposite is true in industrial countries. Some other works also revealed the pattern by which foreign banks perform better in developing countries (e.g., Clarke et al., 2000; Dages et al., 2000; Bonin et al., 2005) and, on the contrary, they register an inferior performance in developed countries (e.g. DeYoung and Nolle, 1996; Berger et al., 2000).

The main argument which tries to explain the situation just described is related with the several advantages and disadvantages that foreign banks have while operating abroad. Some

research suggests that the advantages of foreign ownership may outweigh the disadvantages in developing nations. In developing countries, foreign banks are more likely to pursue profit maximizing opportunities than government or private domestic controlled banks, which may have supplementary goals different than value-maximization, such as social motives or conglomeration motives (Claessens, et al., 2001; Demirgüç-Kunt and Detragiache, 2005; Micco, et al., 2004). Foreign-owned banks are usually part of large banking organizations, and thus they generally face the same scale economies and diseconomies of large, domestically-owned institutions. They may also have advantages in serving multinational customers, better access to capital markets, superior ability to diversify risks, and the capacity to offer some services to multinational clients not easily provided by domestically-owned banks (e.g., Goldberg and Saunders, 1981). In developing nations, foreign-owned institutions from developed nations may also have access to superior technologies, particularly information technologies for collecting and assessing ''hard'' quantitative information. Although foreign-owned banks may also have some disadvantages due to problems related to managing from a distance, coping with multiple economic or regulatory environments, and accessing qualitative information about local conditions, however the bulk of the literature tends to converge on the conclusion that the advantages manage to outweigh the disadvantages, especially in developing countries (e.g., Berger et al., 2003; Buch, 2003).

Turning to the effects of foreign acquisitions on bank performance (dynamics effects), there is still very little clarity about the results. First, it is still not clear if the positive impact in post-performance results are a direct impact of foreign acquisition, since it could be that foreign banks tends to acquire banks with good performances or domestic banks with performance problems, so that the effect of these acquisitions is modestly positive, but still not enough to raise the acquired banks' performance up to the levels of their domestic peers (Peek et al., 1999). Moreover, there are still conflicting results on whether the variations in a bank's performance after foreign acquisition are mainly due to an improvement in management or just to a shifting of a bank's objectives. For

instance, Majnoni, Shankar, and Varhegyi (2003) document the dynamics of foreign banks' ownership in Hungary between 1994 and 2000 and find that foreign banks, while pursuing similar lending policies, achieve greater profitability than their domestic counterparts. On the other hand, Berger et al. (2005) found that foreign acquisitions shift the banks' portfolio to more profitable loans and pushes banks to abandon low profitable loans (such as, Small Medium Enterprises (SMEs) loan).

2.2.3 Private Domestic Banks

Another type of bank ownership is the private domestic-owned bank. While studies of family firms have been widely discussed in management and corporate finance literatures (e.g. Anderson and Reeb, 2003; Maury, 2006; Villalonga and Amit, 2006), the literature on bank ownership focuses primarily on either state or foreign ownership of banks and does not pay too much attention on this type of ownership. There are some researches that include the analysis of private domestic banks, in order to document the more nuanced and holistic view of the relationship between type of ownership and bank's performances (e.g. Berger et al., 2005; Mian, 2006; Micco et al., 2004). However, those studies usually use domestic banks as a comparison for government banks or foreign banks.

In emerging countries, private domestic-owned banks are usually controlled by a large domestic shareholder in the form of family, wealthy individuals or closed firm that is fully owned by a family. The family-owned bank is usually created in order to support an affiliated business by providing funds for the group necessities, creating an internal market within the firm which is often used to circumvent restrictions, most notably the ones on offshore financing. This type of bank often directs a significant portion of its lending activities to related parties (e.g. firms controlled by the owners' relatives), even when these firms are inefficient. This behaviour is observed primarily in developing countries with poor governance (La Porta, et al., 2003; Laeven, 2001). For example,

La Porta et al. (2003) found that the amount of connected lending of a private bank in Mexico, in 1995, accounts for about 20% of the total credit.

2.3 Critical Review of Previous Studies

Figure 1 provides a picture about the existing literatures of ownership studies in banking. It summarizes what we have been discussing in this chapter. It shows two main issues that widely discussed in banking: ownership structure and owner's identity. In addition to these issues there is also a stream of research about ownership changes and performances. From the present review, it emerges that there are at least two topics of research that need to be further developed. Firstly, the literature on banks' ownership structures and performance has mainly focused on majority owners, without examining in more details the issue of ownership distribution in each bank (e.g. Caprio et al., 2007; Laeven and Levin, 2009). While the literatures in corporate finance and management has already carried out many efforts to focus on the distribution of ownership among several owners who hold significant among of shares or blockholder (e.g. Attig et al., 2009; Leaven and Levin, 2008; Maury and Pajuste, 2005), little attention has been devoted to the distribution of ownership among blockholders in banking studies.

Previous studies of multiple blockholder (MB) that consider distribution of ownership among blockholders usually focus on how many blockholders are included in the ownership structure and on the distributions of ownership among those blockholders. Despite many efforts have been made to study MB and the impact on firms' performance and value, what we currently know on this issue is still limited and the findings largely inconclusive. Some studies have supported the thesis that the presence of MB has a positive impact on firms (e.g Maury and Pajuste, 2005; Attig et al., 2009). On the other side, other studies have predicted that MB has no impact on performance, actually they can even decrease the ultimate performance (e.g. Singh and Davidson III, 2003; Konijn et al., 2011).

Figure 1. Ownership Studies in Banking Industry

Structure:
- Shares dispersion or concentration

GOVERNANCE

OWNERSHIP

Identity:
- Government
- Domestic Private Firm:
  o Family and non-family
- Financial institution
- Foreign Ownership:

Objectives and Orientation

Changes in Ownership

- Privatization
- Foreign acquisition
- Merger & Acquisitions

PERFORMANCE
- Profitability
- Efficiency
- Loans
- Risk
- Tobin's Q
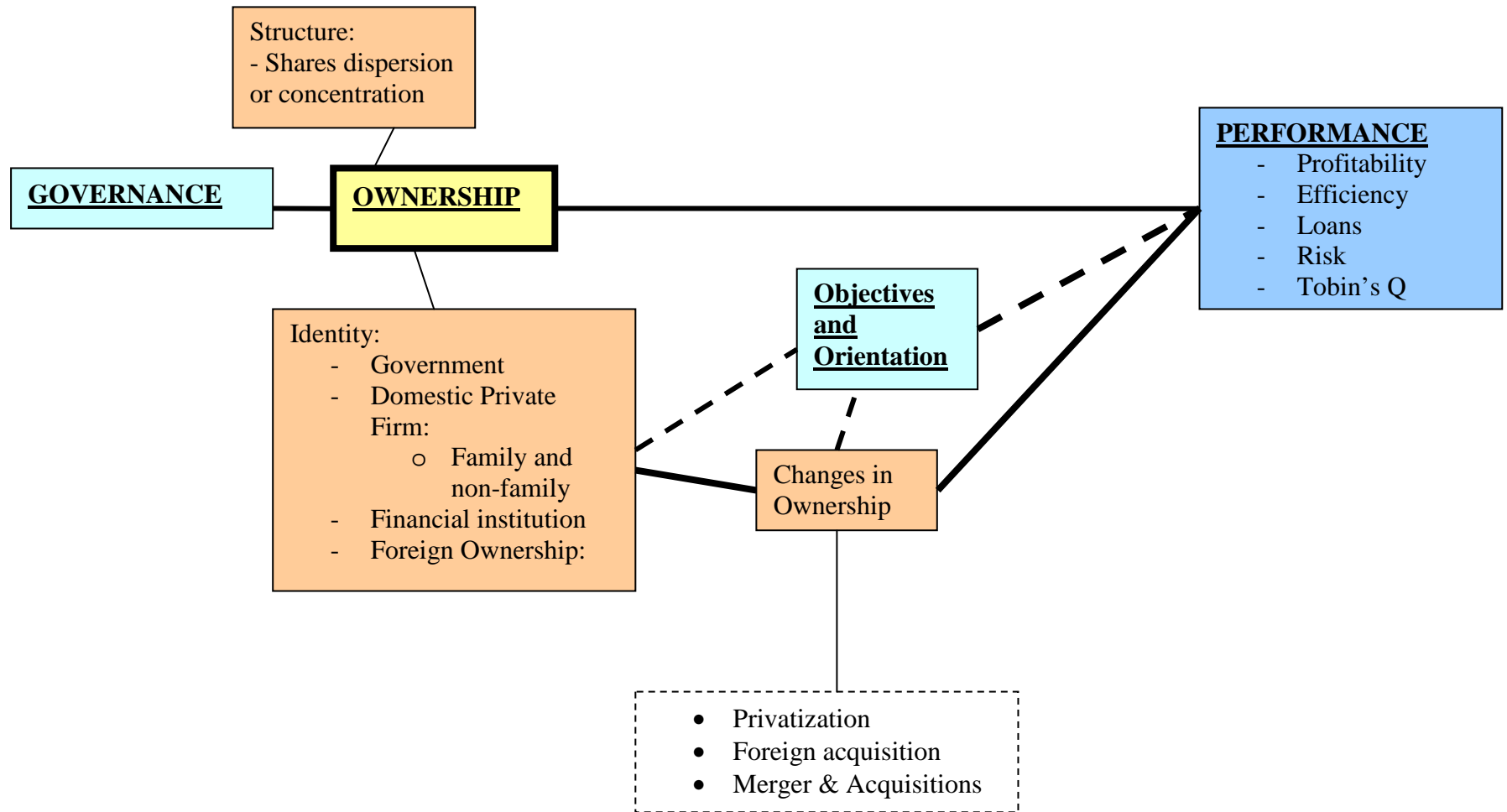
The consideration of the presence of multiple blockholders is very relevant for banking studies, firstly because in the last decade we have witnessed dramatic changes in banks' ownership. Due to the institutional and economic conditions of a country, the process of ownership transformation usually takes a considerable amount of time (Jones and Mygind, 2003). As a consequence, we might find the presence of multiple blockholders in the banking sector. In our view, in light of the recent developments in the literature (Attig et al., 2009; Leaven and Levin, 2008; Maury and Pajuste, 2005), neglecting the presence of multiple blockholders could provide an incomplete figure of what happens in a bank's governance.

Chapter 4 of this thesis intends to fill this gap by examining the issue of ownership distribution in each bank. Not only we take into consideration the presence of multiple blockholder and the ownership distribution among them, but also the role of ownership identity that was neglected by previous researches on multiple blockholders (e.g. Attig et al., 2009; Konijn et al., 2011; Leaven and Levin, 2008; Maury and Pajuste, 2005). Specifically, we intend to examine the impact of the presence and dispersion of different types of blockholders on performance in the banking industry.

Secondly, despite the abundance of studies on the topic of banks' ownership, there is still little knowledge about what happens to a bank that undergoes governance changes. Many of the previous works (e.g. William and Nguyen, 2005) tend to simplify governance rearrangements and conceive them only as a transfer from one type of ownership to another. Differences between performance prior- and post- ownership change are only associated with differences in the managerial abilities of each type of ownership. However, changes in ownership might also shift a bank's business orientation that ultimately has an impact on banks' performance. For example, changes in banks' performance after privatization might be due to a shift of the bank's business orientation. Several studies have documented how different types of ownership affect a bank's business orientation which reflects, for instance, in the composition of its portfolio (Berger et al.,

2005). Information about the ways in which banks conduct their business after ownership rearrangements is important to understand in what manners different types of ownership impact on performance.

Chapter 5 of this thesis intends to address such issue by looking at the differences in business orientations of different ownership types and how these differences affect performance. Different types of owners may follow different kinds of goals besides profitability and thus have a different business orientation. We extended the study of ownership changes on bank's performance by taking into consideration differences of business orientations among different types of ownership and by using Net interest Margin (NIM) determinants as a bank's business orientation proxy. We analysed how different types of ownership shape business orientation and how this new orientation, in turn, affects performance.

In addition of those two limitations above, it is also still important to explore other types of ownership that might not be widely found around the world, for example regional banks. Regional banks can only be found in specific countries, for example in Japan or Indonesia. Regional banks usually refer to banks that operate in certain area or region. In Japan, Loukoianova (2008) finds that regional banks are less cost and revenue efficient than both their private sector counterparts (City and Trust banks). Differently from what happens in Japan, regional banks in Indonesia not only cover certain areas or regions, but they are also controlled by local or province government. The study of different types of banks will increase our richness in knowledge about the topic of ownership identity, especially in the banking sector, since different types of ownership exhibit different behaviours.

CHAPTER 3

Research context: the Indonesian Banking Industry

Indonesia's banking crisis in 1997, which proved to be one of the most serious in any country in the world in the twentieth century (Enoch et al. 2001), has drawn much research interest. However, empirical studies analysing the Indonesian banking industry after the crisis are still very few. We developed this section in order to give more information about the Indonesian banking Industry that constitutes our research context. We will illustrate the developments in the Indonesian banking industry before and after the Asian crisis in 1997-1998. We will describe the transformations that characterized the Indonesian banking industry during and after this period, including the regulation and institutional developments which took place in those years. We will give special attention on the issue of banks' ownership and especially on the ways in which different types of banks' ownership are currently evolving, since we have observed significant evolutions on this side and since these changes are directly related with our researches questions.

The rest of this chapter is organized as follows. The first section describes the developments of the Indonesian banking industry before the Asian crises in 1997-1998, including the period of government banks' supremacy (1968-1980) in the banking sector and the liberalization process that occurred one decade prior to the crises. The second section describes the Indonesian banking sector during the crisis period, including an illustration of the restructuring processes that were taken by the government and of the regulation reforms that were implemented after the crises. Finally, the third section analyses ownership settings in the Indonesian banking sector after the crises. We focus on the presence of three types of ownership in the banking sector: government, private domestic or family and foreign.

3.1 The banking institution before the 1997-1998 crises

3.1.1 The beginning: State-owned Banks Supremacy

The genesis of the Indonesian banking system is marked by the nationalization of several Dutch-owned banks shortly after Indonesia proclaimed its independence in 1945. The State-planned economy in that era was closed to private funds, as the State exercised full control on this sector. As a consequence, the development of the banking sector was halted. In the mid of the 1960s a change in the government regime brought about a major shift in the Indonesian economic policy. The new government at the time was prone to implement a more open economic system. In the beginning of this period, the government of the time permitted new entries for private banks, including foreign banks. But then, permissions for the establishment of new banks were halted again in 1968, when the number of domestic private banks reached the number of 122, and the number of foreign banks accounted for 11 banks, ten of which were branch banks and one a joint-venture bank (Sato, 2005).

In this period, the Indonesian government intentionally maintained its ownership in the banking sector to support several development programs that were established. The government established priority sectors and actively provided financing to those sectors through government-

controlled banks. By controlling banks, the government exercised a full control over interest rates and lending amounts that would be targeted to the priority sectors. In order to support the presence of these banks, the government gave some privileges to the State-owned bank in terms of interest subsidies and also of regulation that obligated state-owned enterprises to deposit all of their funds in the government-controlled banks.

The government maintained numerous restrictions, such as interest rate ceilings and direct credit targets that left a limited space for private banks to set up their own interests and lending strategies in order to compete, especially with government-controlled banks. The restrictions imposed in the banking sector and the privileges recognized to government-controlled banks made bank's competition relatively low at this period. In other words, government-controlled banks were left with absolute supremacy (Nasution, 1996).

3.1.2 Liberalization period

In 1981, the fall of oil prices disrupted economic growth of Indonesia, since oil was the major source of Indonesia's revenues at the time. The decline of oil revenues made the government unable to maintain its role as a conduit for development funds through the banking sector, particularly through its directly owned banks. In order to increase capitalization of the banking sector, a series of reforms aimed at liberalizing bank were implemented. The first step of this liberalization process happened in 1983. Credit ceilings were removed and State-owned banks were allowed to offer market-determined interest rates on deposits. Consequently, state banks raised both deposit and lending rates, and the balance of deposits at all commercial banks rose steeply. Still, restrictions on new entries were maintained.

However the first liberalization measures appeared not sufficient to increase capital accumulation in the banking sector. In order to channel new fresh capitals from the private sector to the banking sector, further deregulation was introduced in October 1988 (policy package also

known as PAKTO 88). This second financial liberalization removed restrictions on new entries in the banking sector and eased the requirements for the opening of branches by all banks. Reserve requirements were reduced and the entry of new foreign banks through joint ventures was also permitted. As a result of these liberalizations, many new private banks were established and this brought about an important revision of the principal players in the Indonesian banking sector. The shares of the seven state-banks in total commercial-banks' assets declined from 63 percent in 1988 to 38 percent in 1996, while the shares of private banks more than doubled from 24 to 52 percent (Sato, 2005). With the goal to increase competition in the banking sector, the government also started to reduce some privileges of government-controlled banks, for example the fact that state-owned enterprises (SOE's) were allowed to put their funds in private banks (Pangestu & Habir, 2002).

The liberalization made it much easier to establish new banks. The new ease of entry in the banking sector was surely seen as an opportunity for big economic groups looking to secure their sources of funds by establishing their own banks. One year before the financial crisis hit Indonesia in 1997, there were 42 affiliated banks that accounted for almost 38% of the shares of the banking sector. Some of these affiliated banks quickly carried out very aggressive policies aimed to increase their shares in the banking sector. However, this full liberalization had its own drawbacks. Banks were granted unsupervised freedom on lending decisions, fund-raising and bank establishment. The majority of credits of these new affiliated banks were channelled to firms within the same groups. As a consequence, these banks had their funds tied out with intra-groups funding (Sato, 2005).

The Indonesian government and central bank soon realized that this situation could increase the structural vulnerability of the banking sector. Thus, the Government decided to raise the minimum capital required for the establishment of new banks, in order to slow down the number of new entries in the banking sector. In 1991, the central bank started to introduce prudential regulations designed to ensure the soundness of banks and to stabilize the consequences of the

liberalization. These directives included a requirement that all banks would have to meet a capital adequacy ratio (CAR), together with the introduction of new ratio-based standards of soundness and a point-rating system for all banks. In 1992, the new Banking Act (Act No. 7 of 1992) was enacted (Hendrobudiyanto, 1994). The Act provided some measures for the implementation of prudential regulations, such as administrative sanctions against noncompliant banks, criminal penalties for bank managers and employees, a "legal lending limit" restricting intra-group lending. Moreover, the Central Bank required all banks to issue quarterly financial statements, revamped the loan-loss reserve fund system, introduced an early warning system of bank failure and established the first domestic credit rating organization (Sato, 2005).

3.1.3 Prior to the crisis

Despite the efforts to improve systems of banking supervision, the banking sector had already shown some negatives symptoms at the beginning of 1990s. Risky behaviours started to spread as shown by an analysis of banks' portfolios. One example of the way in which banks started to conduct risky behaviours is given by the fact that many banks began to give credit to industrial sectors such as real estate and construction. Those sectors are notably quite risky sectors since they are very connected with the growth of the economy; they are characterized by a longer payback return and they typically exhibit higher interest risks and credit risks. The real estate credit grew faster than the growth of total bank credits at that time and the increase in investments in the property sector outpaced the demand of property (Montgomery, 1997). Many properties were not sold to consumer and thus their prices were decreased. As a consequence, a significant number of real estate loans could not be repaid and fell subject to default. In the end, the level of nonperforming loans was increased and even lead to insolvency (e.g. in 1992 Bank Summa was closed due to a financial failure stemming from intra-group real estate finance).

The excessive liberalization of entry also made it difficult for banks to maintain their financial soundness. Banks were confronted with increased costs resulting from intensified competition, but most of them responded to the competitive pressure by increasing the levels by which they were willing to accept risks (Enoch et al., 2001). Moreover, the lack of exit rules for banks increased banks' moral hazard (Sato, 2005). Even after the banking sector shifted from state control to a market orientation, state banks of course, but private banks as well, tacitly assumed that the government would protect them, and believed that bank closures were unconceivable, especially for the banks that had close connections with the Government.

In this period, the Central bank failed to manage effective policies of bank supervision and this decreased the effectiveness of the prudential regulations. The rampant dressing of financial statements by banks made it ever more difficult for the Central Bank to evaluate banks on the basis of accurate information (Sato, 2005). One of the factors that made this happen is the lack of central bank independence. Indeed, even if the Central Bank's power was expanded under the Banking Act of 1992, institutionally it still remained under the control of the Government, enjoying very limited supervisory authority.

While the central bank monitoring ability was limited, the lack of government involvement with regards to bank supervision exacerbated the weaknesses of industry's monitoring. The level of political intervention in the banking sector was very high. Without the existence of specific oversight systems, all the abuses by the politically connected went unchecked. Based on political ties, loans were made to high-risk ventures. Some of these loans ended up in defaults and forced banks to violate their reserve-ratio requirements in order to continue their operations (Creed, 1999). Borrowers with political and bureaucratic connections swarmed to the state-owned banks, leading to a rise of huge loans to projects run by the well-connected business groups. Thus, the central bank's prudential regulations eventually became paralyzed. The implementation of the restrictions on intra-group lending by group-affiliated banks was practically not obeyed.

3.2 The Asian Crisis 1997-1998 and Banking Restructuring

As we can understand from the previous section, the Indonesian banking sector before the 1997-1998 Asian crisis was very predisposed to a potential economic shock. Moreover, opening up the Indonesian banking sector to international investments made the banking sector vulnerable to currency shock and substantially more subject to default in the event of investor panic. As the Asian currency crisis spread to Indonesia in July 1997, the government officially enlisted the support of the IMF on October 31, in an effort to hamper a further deepening of the crisis. The banking crisis in Indonesia, which at first was limited to specific unsound banks, subsequently developed into an overall systemic crisis due to the financial unrest generated by the political instability and the accelerating currency decline generated after December 1997.

3.2.1 Restructuring process

The crisis forced the Indonesian Government, under the supervision of International Monetary Fund (IMF), to launch a complete restructuring program in the banking sector in order to prevent the industry from collapsing. On November 1, it closed 16 private banks as a first measure of bank reconstruction. Ultimately, there were five rounds of bank closures and nationalizations between November 1997 and March 1999, while the recapitalization of reconstructed banks was carried out toward the end of 1999 (Enoch et al., 2001). The process of banking industry reconstruction was carried out on a scale which turned out to be far larger than initially expected and it took seven years to be completed.

The five rounds of bank reconstruction measures resulted in the closure of 67 private banks (accounting for 16% of total commercial bank assets at the end of 1996), the nationalization of 12 private banks (20%), and the recapitalization of all 7 state banks (36%), 7 private banks (8%), and 12 (3%) of a total of 27 regional development banks (Sato, 2005). The number of nationalized and

recapitalized banks reached 38, together accounting for as much as 67% of the banking sector's total assets. There was no state-owned or regional bank that was shut down, while their assets expanded as a result of the recapitalization. By contrast, 41% of private banks, accounting for a total of 31% of total private bank assets, were closed. Another 4% of private banks, accounting for 46% of assets, were nationalized or recapitalized, and experienced ownership changes. Table 3.1 shows the comparisons between the banking industry conditions in 1996 (before the crisis) and in 1999 (after the restructuring process). As we can see from the table, the private banks are the type of banks that changed the most after the crises. About 50% of private banks (83 of 164 banks) were closed during the financial crisis.

Table 3.1

Indonesian Banking Industry in 1996 and 1999

Classification	1996 Pre-crisis			Reconstruction Measures	1999 Post-restructuring		
	Number of Banks	Total Assets (Trillion Rupiahs)	Asset Share (%)		Number of Banks	Total Assets (Trillion Rupiahs)	Asset Share (%)
State banks	7	141	36.4		5	505	50.3
Regional development banks	27	11	2.8		26	25	2.5
Private banks	164	201	51.7	Private banks total	81	350	34.9
				Nationalization	4	205	20.4
				Recapitalization	7	69	6.9
				Without reconstruction	70	76	7.6
Joint venture banks	31	20	5.0		29	65	6.5
Branch banks	10	16	4.2		10	58	5.8
Total	239	389	100		151	1,004	100

Source: Bank Indonesia, *Indonesian Banking Directory* (various years); Sato, 2005

3.2.2. Regulation reform

The crisis has shown that the banking Industry in Indonesia was afflicted by a serious problem. The prudential regulations introduced before the crisis of 1997-1998 did not only contain loopholes, but

also lacked of a legal framework that could make those regulations effective. After the crisis, the financial institution and the bank supervision system had undergone major changes. In May 1999, the new Central Bank Act (Act No. 23 of 1999) was enacted. Bank Indonesia, the Central Bank, which was formerly placed under the executive branch of the government and given only limited authority, was legally guaranteed independence from the government and obtained broad authority over banks. It envisioned separating the bank's supervision function from the Central Bank and establishing a new integrated supervisory framework for overall financial services. It was planned that the Central Bank role was maintained only for the sake of maintaining an independent currency and monetary policy, while the new Financial Service Authority (called "Otoritas Jasa Keuangan," OJK) was established with the task of supervising and regulating four sectors: banks, security markets, insurance firms and pension funds. However, the establishment of the authority was eventually postponed and not yet realized until nowadays. Thus, the Indonesian Central Bank still plays the role of regulator body for the banking industry.

Another policy that was introduced to increase the safety of the banking sector is the institutionalization of the deposit insurance system. The introduction of the payoff system was highly appraised among financial market experts, since it was expected to encourage depositors to choose good banks, and to make positive contributions to competition and to the soundness of the banking sector as a whole. However, the implementation of this system needed very careful assessments. The early introduction of a generous insurance system could create a situation of moral hazard for banks and increase the costs for the government, while the lack of a control system could spawn financial unrest. In the beginning, the government announced an insurance system for depositors involving insurance coverage for deposits of 20 million rupiahs or less, which covered 93 percent of all depositors (Enoch, 2000). However, unprotected large depositors, who accounted for 80 percent of the total amount of deposits, made strong resistance to this measure. The fear that large depositors would draw back their deposits and lead to many bank runs pushed the Central

Bank to introduce a blanket guarantee system that gave insurances for all deposits at the end of January 1998. The government kept maintaining the blanket guarantee system to ensure stabilization and the deposit insurance was actually established only in 2008.

The central bank pushed banks to be sounder and more prudent by imposing some regulations, for example the implementation of Basel Accord that required banks to maintain their levels of capital based on risk assessment. As a response to the new institutional environment, individual banks started to implement management reforms (Sato, 2005). One of the major reforms is the implementation of risk management. Before the crisis, even though many banks had organizations and procedures for credit management, they were generally little conscious of risk management. One of the management reform features was the establishment of in-house risk management systems. Banks started to increase their efforts, at their own expenses, to establish policies of information control for risk management and for the development of credit screening systems and capabilities. Moreover, banks started to implement organizational reforms to reduce misuses of bank resources, such as the appointment of independent commissioners and the establishment of an auditing committee. The bank enlisted a foreign bank's assistance for the disposal of nonperforming loans and the design of the risk management systems, and sought a foreign consultancy's advice in reforming the personnel system.

Figure 3.1 provides a picture of Indonesian banking industry development during the period (1966 -2001) that we discussed above. In summary, Indonesian banking sector was began from government banking supremacy, then experienced some liberalization measures. The lack of regulations effectiveness has made the liberalization process lead to unsound banking industry that vulnerable to economic shock. It was proven when Asian crisis 1997-1998 erupted.

Figure 3.1
Indonesian Banking Development
(1966 – 2001)
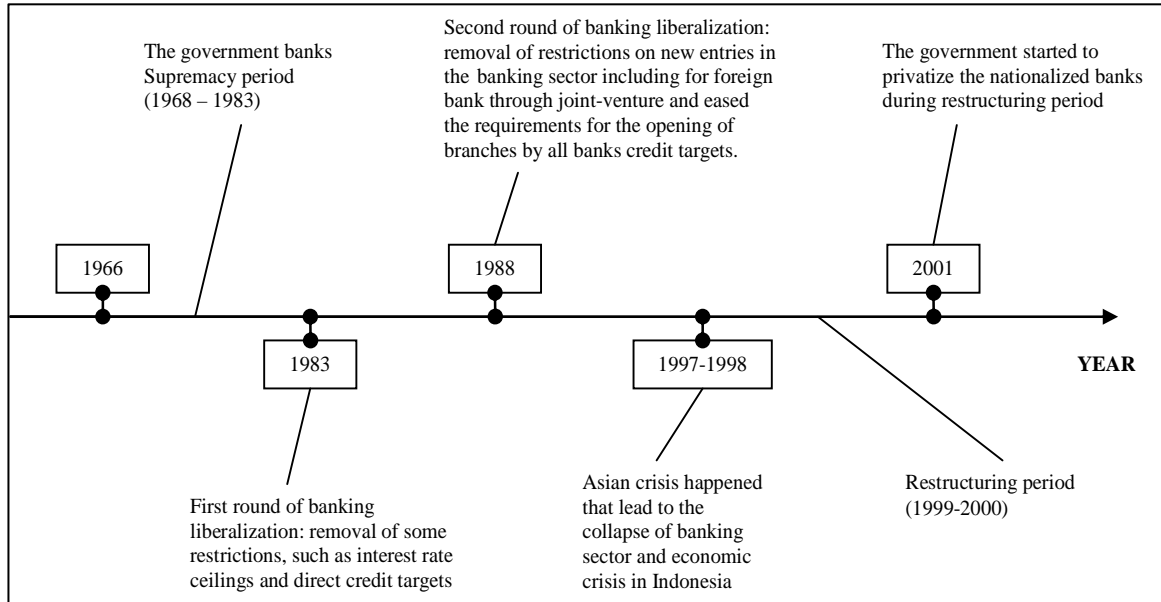
3.3. Banks Ownership after the Crisis

The Indonesian banking sector experienced drastic adjustments after the Asian crisis in 1997 (Enoch, 2000; Enoch et al., 2001; Sato, 2005). The changes occurred not only because the sector was severely hit by the economic crisis, but also because it was placed at the centre of the economic reforms carried out under the International Monetary Fund (IMF) conditionality. Following a series of banks' reconstruction measures, there were major changes in the roster of owners of leading private banks. As the economic condition became more stable in 2000, the Government extended the scope of restructuring processes in the banking industry. Unlike the restructuring program launched during the economic crisis period (1997-1999), which was more focused to prevent the collapse of the banking sector, this extension was aimed to establish a banking sector that would be more prudent and healthier. The government started to launch a privatization program in 2001, in

which some of the banks that had been nationalized were sold back to private investors, especially foreign investors. In addition, some of the state banks went public, even though the majority of shares were still held by the Government. This policy was expected to reduce the interventions of political parties and to make banks' operations more transparent. The government started to reduce its involvement in the banking industry by selling some shares that were owned by cooperation or foundations that were affiliated with the government.

As we noted before, private banks were the banks that changed the most because of the crisis. Table 3.2 provides the picture of changes that happened to private banks. Changes of ownership took place mainly within banks affiliated with business groups. Of 42 business-group-affiliated banks, which accounted for 38% of all commercial banks' assets prior to the crisis, only 7, with a combined ratio of 2% of total bank assets, survived without ownership changes. The surviving banks were mostly small banks operated by business groups as peripheral business. Among the banks not affiliated with business groups, there were more survivors than closures. Thus, the collapse of business-group-affiliated banks was the most notable change that occurred after the banks' reconstruction process. Furthermore, in order to increase the strength of the bank industry by pursuing a general enlargement of banks' sizes, the Indonesian central bank raised the capital requirements that banks needed to fulfil. These policies drew some domestic banks' owners to look for partners in order to help them with the provision of fresh capitals. Moreover, the increase in competition in banking also push bank to have more capital to compete. As a consequence, numerous family-owned private banks, who had limited capital, began to carry out strategic actions such as selling shares to other banks and foreign investors, or going public.

Table 3.2

Domestic Private Banks in 1996 and 1999

| Private Banks | 1996 Pre-crisis | | Private Banks | 1999 Post-restructuring | |
	Number of Banks	Asset Share (%)		Number of Banks	Asset Share (%)
Business-group-affiliated	42	36.7	Business-group-affiliated		
Existing after the crisis	7	2.0	Existing after the crisis	7	2.2
Nationalized	4	16.7			
Recapitalied	3	6.8	Formerly Business-group-affiliated	7	29.3
Closed	23	9.9			
M&As	5	2.2			
Independent	122	13.3	Independent		
Existing after the crisis	78	7.1	Existing after the crisis	67	6.7
Close	44	6.1			
Total private banks	**164**	**50.9**	**Total private banks**	**81**	**38.1**
Total of all commercial banks	**239**	**100**	**Total of all commercial banks**	**152**	**100**

Source: Bank Indonesia, *Indonesian Banking Directory* (various years); Sato, 2005

The banking industry after the crisis was marked by an increase of foreign ownership's presence. At first, the government invited foreign investors to enter the Indonesian banking market by offering to the market, the nationalized banks during the restructuring period 1998-1999, as part of the privatization program. Since domestic investors were still hurt by the economic crisis, the government turned to foreign investors to buy privatized banks. The new foreign investors were expected to bring fresh capitals in the banking sector. Furthermore, the entrance of new foreign investors was seen as an opportunity for knowledge transfer and sharing in the industry and it was expected to increase the level of confidence in the banking sector. Further, the Government relaxed the ownership regulations regarding foreign ownership by allowing foreign investors to control up to 99% of the shares of a bank's ownership. This policy has attracted many foreign banks and financial institutions to acquire the majority shares of some domestic private banks.

3.3.1 Recent Picture

Before the economic crisis in 1997, the central bank grouped banks into five cluster base on bank's ownership: central government banks, regional banks (owned by the province government), private domestic banks, foreign joint venture banks and foreign branch banks. This categorization was relevant before the 1997-1998 crises since it truly reflected the ownership condition of banks. After the crisis, central government still used that categorization and clustered banks in the same manner even if there were changes happening in the ownership of banks. For example, central bank still put some private banks in the category of "domestic private banks," even though those banks were no longer owned by private-domestic investors. Since those private domestic banks were already taken over by foreign investors and were now controlled by foreigners. Another example we can offer concerns the cluster of "joint-venture banks". This cluster comprises banks which were jointly owned by foreign and domestic shareholders. After the foreign ownership regulation was relaxed, many of previous "joint-venture banks" were now solely controlled by a foreign bank without a domestic partner holding any significant share.

Since there were significant changes in the ownership of banks, we suggest using different approaches to group banks. In this study we decided to group banks based on the identity of major owners or of the largest shareholders. Looking at the Indonesian banking industry in these days, we can divide banks into four groups, based on the different ownership identities that exist: central government banks, regional government banks, foreign banks, and Private domestic or family banks. The use of this categorization is supported by previous literatures (Faccio & Lang, 2000, La Porta, et al., 1999) and by the actual ownership conditions in Indonesian banking. We traced the ultimate owner of each bank, and then we analysed its identity to group it into the fit category. We believe that this approach is more suitable for the current ownership conditions in the Indonesian banking industry.

The presence of government ownership in the banking sector is still relatively high. The central government-controlled banks were still major players in the banking sector. The assets of the biggest four government controlled banks, account for 45% of total assets in the banking sector (See table 3.3). Although almost all the government-controlled banks were listed[2], the government still owned the majority of shares (around 65% on average in 2009). Additionally, one has to consider regional banks. Differently from regional banks in other countries (e.g. in Japan), in Indonesia regional banks do not only refer to banks that have specific area of operation but that are also controlled by the province or regional government. They are accounted for 5% of total assets in the banking sector (Indonesian Central Bank, 2009). Even though their shares of assets compared to all banks assets is only 5%, regional banks are usually major player in the banking sector of their own provinces.

Regarding foreign banks, there are at least three types of foreign banks in Indonesia. The first type is the branch bank. This a representative office or one-branch unit of a foreign bank that usually focuses on highly profitable specialised services for a limited group of clients. The second type is the joint-venture bank. In this second typology, the foreign bank establishes a new bank that is jointly owned with the domestic bank or domestic investors. The third type is the foreign acquisition bank. In the third type, foreign banks assume that they will be more efficient than local banks and thus able to export efficient banking practices at low costs. The mode of entry in the latter case is to buy a controlling share of an already established bank. Usually this process goes through the participation in a privatisation process, the buying of a controlling stake of publicly traded banks, or the acquisition of a licence from a small local bank converted into a 100% foreign-owned daughter company of a global bank.

Table 3.3 provides a list of ten of the largest banks. The list provides a clear picture about the changes that occurred. We can see that central government-controlled banks were dominating the list before and after the 1997-1998 crises. In 1996, six government banks that were included in

---

[2] Only one bank is still not listed until 2009 (Bank Tabungan Negara)

the ten largest banks, accounted for around 55%. In 2003, four government banks that were included in the ten largest banks, accounted for around 45%, or slightly decreased form central government-controlled banks' shares before crises. We also can observe the increase in foreign banks' participation. In 2003, six of the ten largest banks were foreign banks (five were former private domestic banks that were subsequently controlled by foreign institutions and one is a foreign branch bank).

Table 3.3

Ten Largest Banks in 1996 and 2003

Rank	1996				2003				
	Name of Bank	Ownership	Asset	%Asset	Name of Bank	Ownership	Reconstruction Measures	Asset	%Asset
1	BCA	Private (domestic-owned)	36.1	9.3	Mandiri	State	Recapitalization, merger	250.4	23.6
2	BNI	State	34.9	9.0	BNI	State	Recapitalization	125.6	11.9
3	BRI	State	34.4	8.9	BCA	Private (foreign-owned)	Nationalization, foreign sale	117.3	11.1
4	BDN	State	32.4	8.4	BRI	State	Recapitalization	86.3	8.1
5	Exim	State	25.8	6.7	Danamon	Private (foreign-owned)	Nationalization, merger, foreign sale	46.9	4.4
6	BBD	State	24.5	6.3	BII	Private (foreign-owned)	Nationalization, foreign sale	36.3	3.4
7	Danamon	Private (domestic-owned)	22.0	5.7	Permata	Private (foreign-owned)	Nationalization, merger, foreign sale	28.0	2.6
8	BII	Private (domestic-owned)	17.7	4.6	BTN	State	Recapitalization	27.1	2.6
9	BDNI	Private (domestic-owned)	16.7	4.3	Citibank	Foreign branch	-	24.6	2.3
10	Bapindo	State	13.7	3.5	Lippo	Private (foreign-owned)	Nationalization, foreign sale	24.2	2.3
Total for 10 largest banks			258.2	66.6				766.7	72.3
Total for all banks			387.5	100				1,059.8	100

Source: Bank Indonesia, *Indonesian Banking Directory* (various years); Sato, 2005.

CHAPTER 4

Does hybrid ownership work?

Blockholders diversity and performance in the banking industry

4.1. Introduction

Initial studies on corporate governance arrangements have mainly focused on two opposite ownership structures: on the one hand, the widely-diffused ownership structures first studied by Berle and Means (1932); on the other hand, the structures centred on the presence of a single large shareholder, combined with many, small minority shareholders (Shleifer and Vishny, 1986). However, a rapid and diversified change has occurred in ownership structures around the world (Laeven and Levin, 2008). As a result, the corporate governance landscape has significantly changed in many countries, with the emergence of diverse and powerful owners. These changes have led to the creation of so-called "multiple blockholders" or "multiple large shareholders" arrangements, in which firms are jointly controlled by several

blockholders[3]. For instance, Faccio et al. (2001) revealed that about one-third of listed firms found in Asia Countries adopted this particular type of configuration, while Leaven and Levin (2008) found the same picture in Europe. We can even observe the increase of share ownership by blockholders in the U.S, a country in which firms are believed to be in large part diffusely-owned (Dlugosz et al., 2006; Holderness, 2009). Moreover, it has been noted that such governance arrangements often involve the joint presence of diverse types of owners - such as the State, families, industrial companies, financial institutions, investment funds, etc. - with important differences in objectives, investment horizons and abilities (Arthurs and Johnson, 2008; Hoskisson et al., 2002; Pedersen and Thomsen, 2003). We refer to "hybrid ownership" structures to identify such arrangements in which different types of large blockholders are jointly present.

In order to better understand such varied and changing ownership landscape, a (still limited) number of empirical studies has been conducted on multiple blockholders (MB) (Attig et al., 2009; Leaven and Levin, 2008; Maury and Pajuste, 2005). Existing literature, however, still provides conflicting evidence on whether the presence of an additional blockholder will bring a positive or negative impact on a firm's performance and value. A few studies have documented a positive correlation between the presence of multiple blockholders and firm value (Leaven and Levin, 2008; Maury and Pajuste, 2005). On the other hand, other studies have theorized or documented a neutral or negative impact on performance (Cronqvist and Fahlenbrach 2009; Singh and Davidson III, 2003). In our view, the conflicting results of this initial body of research can be partly explained by the lack of recognition of the heterogeneity in ownership types. Previous studies mainly focused on the number of blockholders and their share distribution in order to understand the impact of MB on

---

[3] In our paper, we refer to "blockholder" as an entity which holds a large share of stock in one firm. Following other papers (Faccio and Lang, 2002), empirically we use the 5% threshold to identify blockholders. A blockholder is thus a shareholder owning shares summing to 5% or more. See Sample and data section for more details.

controlling and monitoring processes and, by that, on performance (Attig et al. 2009; Laeven and Levine, 2008; Maury and Pajuste, 2005). There is therefore an underlying assumption that owners are relatively homogenous, and their incentives and ability to monitor are mainly influenced by their equity positions. Less attention has been devoted to investigating hybrid ownership structures and how the joint presence of blockholders with different identities (e.g. State, families, and foreign firms) impacts on firm's performance. In this sense, novel theoretical perspectives such as multiple agency theory (Connelly et al., 2010) and principal-principal theory (Young et al, 2008) can be useful to identify potential conflicts that may arise due to misalignment of interests between different blockholders.

Based on such arguments, this chapter builds on multiple agency and principal-principal theories in order to analyze the relationship between the presence of MB and firm performance while taking into consideration the role of ownership identity. In order to complement previous research (Attig et al., 2009; Konijn et al., 2011; Leaven and Levin, 2008; Maury and Pajuste, 2005), we examine the impact of the presence and dispersion of different types of blockholders on performance, by focusing on the banking industry in an emerging country – Indonesia - and on three types of blockholders which are dominant in emerging countries (Attig et al., 2009): the State; families; foreign firms. In line with the prediction of multiple agency and principal-principal theories, we argue that the presence of multiple blockholders with diverse, and possibly conflicting, interests can lead to negative consequences in terms of performance.

The study of the banking sector is particularly interesting to study hybrid ownership structures since in the last two decades it has witnessed dramatic changes in ownership arrangements, as a consequence of the joint forces of privatization/nationalization, restructuring and M&A waves, liberalization, as well as other environmental changes (Berger et al, 2005). As a result, the banking industry worldwide (and in particular in emerging

countries) has seen the emergence of a diverse set of ownership arrangements, in which multiple types of owners co-exist (The Economies, 2010). The case of Indonesia, moreover, provides an ideal context to study our research question given that various types of ownership arrangements have emerged in the Indonesian banking industry over the last decade a consequence of financial crises, bailouts, privatizations and restructuring processes.

Our empirical analyses are based on a sample of 120 banks observed over the period 2000-2009. For each bank, we measure performance in terms of ROA and ratio of operating expenses to operating revenues (OEOR). The presence and nature of blockholders is captured through three indicators: the number of blockholders; the degree of ownership concentration; the distribution of shares across blockholders with different identities (government; families; foreign firm). The results of our regression analyses show that the increase in number of blockholders brings a negative impact on bank profitability and efficiency. We also find that ownership concentration has a positive relationship with banks' profitability and efficiency. Moreover, we find that the distribution of ownership among different types of blockholders has a negative impact on both profitability and efficiency.

Our study thus contributes to the existing literature in three ways. First, we extended studies on multiple blockholders by looking at the heterogeneity of blockholders. We argue that the way shares are distributed across blockholders with different identities plays a significant role in determining the impact of governance arrangements on performance. We claim that looking only at the concentration/dispersion of shares, without considering also the identity of shareholders, provides only a partial perspective to study principal-agent or principal-principal problems. Second, we suggest that - given the increase of complexity and dynamism in ownership structures around the world, and in particular in emerging countries - traditional agency theory may be not sufficient to fully understand how internal governance systems affect firms' strategies and results. The recourse to multiple agency and principal-

principal perspectives (Arthurs and Johnson, 2008; Connelly et al., 2010; Hoskisson et al., 2002; Young et al., 2008) can provide a deeper insight to explain what happens in multiple blockholders firms. Third, this study shows the importance of considering ownership composition among blockholders in banking studies. While the topic of ownership has been widely investigated in banking studies (e.g. Berger et al., 2005; Bonin et al., 2005; Caprio et al., 2007; Shehzad et al., 2010), most of the works have focused only on dominant or major shareholders, without taking into account ownership composition and the joint presence of blockholders with multiple identities.

The rest of the chapter is organized as follows. In Section 2, we present previous literature and discuss our research hypotheses. We also describe the context of study, the banking sector in Indonesia. In Section 3, we describe our sample, variables and methods. Section 4 presents the results of our regression analyses. In the last section (section 5), we conclude by summarizing our results and by discussing avenues for future research on the topic.

4.2 Theory and Hypotheses

4.2.1 Ownership in Banking

In the banking sector, studies of governance effects on bank performance have significantly flourished. In order to explain the differences in banks' performance levels, several governance dimensions were analyzed: ownership structure (e.g. Caprio et al. 2007; Shehzad et al., 2010), ownership identity (e.g. Bonin et al. 2005; Iannotta et al., 2007), composition and change of the board of directors and CEO turnover (e.g. Crespi et al., 2004). Even though banks are a quite unique organizational context, the problem of bank governance does not differ greatly from the governance problem of any other organization (Andres and

Vallelado, 2008). The same core corporate control mechanisms that influence the governance of non-financial firms also influence bank operations (Caprio et al., 2007).

As far as ownership is concerned, there are at least two important issues that have received special attention in banking: ownership concentration and owner's identity or ownership type[4]. Concerning the role of ownership concentration, some empirical studies in the banking area, by using an approach similar to the one adopted for ownership studies in corporate finance, try to provide evidences on the way in which ownership concentration has an influence on banks' value and performances. The study of ownership in banking provides contradictive results regarding the impact of ownership concentration on performance. On one side, some researches revealed the positive impact of ownership concentration on bank's performance (e.g. Caprio et al., 2007; Ianotta et al., 2007; Shehzad, et al., 2010). Caprio et al. (2007), using data of 244 banks from 44 countries found that cash-flow rights by the controlling owner have a positive impact on the bank's valuations. Shehzad et al. (2010), using data 500 banks from 50 countries found that banks with concentrated ownership have lower non-performing loans ratio. For Europe, Ianotta et al. (2007) use a sample of large banks from 15 European countries, and evaluate the impact of alternative ownership forms (government, mutual, private), together with the degree of ownership concentration, on performance and risk. The authors find that higher levels ownership concentration increases loan quality and lowers risk. On the other side, some results provided a different picture. Laeven and Levin (2009), using 279 banks from 48 countries found that cash-flow rights of the largest shareholders have a negative relationship with bank's bankruptcy risk. Boujelbene and Zibri (2009) found that ownership concentration increase bank's risk-taking behaviours.

The second issue is ownership identity or ownership type. A related stream of research has explored the influence of different types of owners on banks' performance. Government

---

[4] We provide more detail reviews on ownership concentration and owner's identity literatures in Chapter 2.

and foreign ownership are two types of owners that have received special attention in banking studies. Several studies in developing countries, for instance, have found that Stated-owned banks tend to have lower performance, e.g. lower efficiency levels, lower profitability and higher nonperforming loans, as compared to privately-held banks (Beck et al., 2004; La Porta et al., 2002a; Megginson, 2005; Sapienza, 2004).

Another set of studies analyzed the comparison of foreign banks performance with respect to other types of banks. The focus has been on comparing how foreign banks perform with respect to other types of banks in developed or in developing countries. For instance, some works though revealed that foreign banks perform better in developing countries (e.g., Clarke et al., 2000; Dages et al., 2000; Bonin et al., 2005); other studies have shown that foreign banks have an inferior performance in developed countries (e.g. DeYoung and Nolle, 1996; Berger et al., 2000). Other works have compared the ways in which foreign and domestic banks perform in both developed and developing countries. The work by Claessens et al. (2001) empirically documents that foreign banks are more profitable than their domestic counterparts in developing countries, but shows that the opposite is valid as far as developed markets are concerned. In much of the same vein, Demirgüç-Kunt and Huizinga (1999) study banks in 80 countries over the 1988-1995 periods and find that foreign banks have higher margins and profits than domestic banks in developing countries, unlike the industrial countries, where the opposite tends to happen as the domestic outperform the foreign banks.

The last type of ownership that has received attention in banking study is private domestic ownership. Although this topic has been less considered than the two previous types, there is a series of studies that consider the analysis of private domestic banks, in order to document the more nuanced and holistic view of the relationship between type of ownership and bank's performances (e.g. Berger et al., 2005; Mian, 2006; Micco et al., 2004). Such studies usually define domestic banks by comparing them to government banks or

foreign banks. In emerging countries, private domestic-owned banks are usually controlled by a large domestic shareholder in the form of family, wealthy individuals or closed firm that is fully owned by a family. One of the issues that most characterizes this type of ownership is connected lending (lending activities to related parties). Family banks often directs a significant portion of their loan to firms that have connection with the owners (e.g. firms controlled by the owners' relatives) and this tendency seems to confirm even in the cases in which these firms are inefficient (Laeven, 2001). This behaviour is observed primarily in developing countries with poor governance (La Porta, et al., 2003; Laeven, 2001).

Despites numerous researches on ownership structures in the banking industry, we did not find any study focused on the impact of multiple blockholders on bank's performance. Thus we argue that our research can bring an important to filling such gap in the literature. From the review of the literature related to the banking industry illustrated in Chapter 2, it emerges that there are two common ways to capture the ownership concentration variable in banking studies. The first way is by using the number of shares owned by the majority or by the largest shareholder (e.g Caprio et al., 2007; Laeven and Levin, 2009). The second way is by using dummy variables that represent banks with concentrated ownership (e.g. Boujelbene and Zibri, 2009; Shehzad, et al., 2010). A bank is said to have concentrated ownership if there is at least one large shareholder present in the bank's ownership structure. The large shareholder is usually defined as the owner who has a significant amount of shares in the portfolio (using 10%, 20% or 50% threshold). However, previous studies generally focus exclusively on majority owners but devote few attention to the distribution of ownership among multiple and diverse blockholders.

In the light of recent development in the corporate governance literature (Attig et al., 2009; Leaven and Levin, 2008; Maury and Pajuste, 2005), neglecting the presence of multiple blockholdes could provide an incomplete figure of what happens in a bank's governance

structure. Moreover, traditional theoretical explanations rooted in agency theory could not adequately address the problems and conflicts arising between different types of principals, rather than between the management and a single large shareholder (Connelly et al., 2010; Young et al., 2008). In order to address such limits, we first briefly review the more general literature that has investigated the influence of multiple large blockholders on performance, and then present a set of hypotheses based on multiple agency and principal-principal theories.

4.2.2 Multiple large shareholders and performance

Several studies have revealed the increased presence of large blockholders in the corporate governance arrangements of companies around the world. Faccio et al. (2001), for instance, pointed out the presence of multiple blockholders (MB) or multiple large shareholders in about one third of publicly-listed firms in Asian countries including Hong Kong, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan and Thailand. Leaven and Levin (2008) found the same picture in a set of Western Europe countries including Austria, Belgium, Finland, France, Germany, Ireland, Italy, Norway, Portugal, Spain, Switzerland and the United Kingdom. Similarly, the relevant presence of MB has been documented also in the U.S, a country in which ownership patterns are generally believed to be widely dispersed (Holderness, 2009). This evidence has persuaded many scholars to focus on the presence of MB and investigate its effect on firms' market value and financial performance.

Despite many efforts have been made to study MB, what we currently know is still little and the findings are still largely inconclusive. Some studies have supported the dissertation that the presence of MB has a positive impact on firms. For instance, Maury and Pajuste (2005), conduct a study on Finnish firm-level data and find that a more equal distribution of votes among large blockholders has a positive effect on firm value. Each

blockholder is believed to have specific and additional incentives and abilities to influence management (e.g. through putting persons on the board of directors, or through liquidation) and monitor managerial choices that could help to curtail non-value-maximizing behaviour on the part of management (Gunasekarage, Hess, & Jie, 2007; Maury and Pajuste, 2005). Moreover, the presence of a second block shareholder can alleviate the monitoring problem. MB help to create contestability among block shareholders during the decision-making processes (Bloch and Hedge, 2001) and decrease the possibility of expropriation by a major shareholder at a cost for minority owners and for firm value (Attig et al., 2009).

On the other side, other studies have predicted that MB have no impact on performance, others have even argued that they can have a negative impact on performance. Singh and Davidson III (2003) find that the presence of outside block ownership not necessarily reduces agency costs in listed large US corporations. The addition of a new large holder does not necessary mean additional monitoring since there might be a free riding problem. The new block shareholders could rely only on the monitoring process of the largest shareholders should they consider this option as the most efficient for them. As control and residual incomes are divided among a larger group of shareholders, the motivation and ability of blockholders to control diminishes (Singh and Davidson III, 2003). The effect that blockholders can have on performance depends on the blockholders' ability to influence a firm's strategy. Such ability is related with blockholders' block size or direct involvement in the decision-making process (Cronqvist and Fahlenbrach 2009). The more the blockholders' number increases, the more it limits the ability of smaller blockholders to effectively challenge the largest blockholder (Cronqvist and Fahlenbrach 2009; Konijn et al., 2011).

Although previous literature has led to conflicting views about the presence of multiple blockholders and its impact on bank performance, we argue that the impact in this research is more likely to be negative, for several reasons: 1) The ownership concentration

matters less in countries with strong legal protection for shareholders and, on the contrary, it plays a significant role in countries where the shareholders protection is low (La Porta et al., 1999). Indonesian banking, however, is characterized by a less restrictive regulatory environment (Sato, 2005) and thus in this institutional condition, ownership concentration in banks can be potentially important for bank governance (shareholder monitoring hypothesis) and ultimately help performance (Kim, Lee, & Rhee, 2007). 2) The specific problems in the banking industry, like moral hazard and asymmetric information, have determined internal governance mechanisms (management ownership, board composition and quality) to be insufficient governance mechanisms (Booth, Cornett, & Tehranian, 2002). Ownership concentration is associated with the research of prospective information about managerial or board strategies. Large share-owners then collect forward-looking information in order to alter the course of action of the firm, especially if the board pursues strategies against their interests. On the contrary, if ownerships are highly dispersed among blockholders, it may reduce such incentives (Tirole, 2006). Based on this argument, we argue that:

> *Hp 1: Ceteris paribus, a higher number of blockholders is negatively associated with bank performance.*
>
> *Hp 2: Ceteris paribus, a higher degree of ownership concentration of blockholders is positively associated with bank performance.*

4.2.3 The heterogeneity of blockholders: insights from multiple agency and principal-principal theories

The above mentioned studies rely on the numbers of blockholders and distribution of shares among blockholders to investigate the impact of multiple blockholders presence. Such studies, however, tend to assume that owners are relatively homogenous, and their incentives

and ability to monitor are mainly influenced by their equity positions. The underlying assumption is that, as the shares of additional blockholders increase, so does their motivation and effort to influence and monitor the management of the company. However, we claim that neglecting other factors that might influence owner's incentives to monitor managerial choices can lead to a partial understanding of what happens in multiple blockholders contexts. In particular, as suggested by multiple agency and principal-principal theories, we claim that the identity of the different blockholder is one of such relevant factors that should be taken into consideration.

While agency theory focuses on the relationship between owners and managers, generally assuming that ownership is either widely diffused (as in public corporations) or held by a single large shareholder, in MB firms the relations tend to be more complex. Managers, in fact, will have relationships not with a single owner, but with a set of diverse owners. More recent developments of multiple agency theory and principal-principal theories seem to be better equipped to explain such contexts. Multiple agency theory examines conflict of interests among more than one agent group when at least one of the agents is connected with different principals (Athurs and Johnson, 2008; Child and Rodriguez, 2003; Connelly et al., 2010; Filatotchev and Allcock, 2008). Thus instead of addressing a one-to-one relationship, multiple agency theory examines a many-to-many relationship to explain outcomes. Principal-principal theory emphasizes the relationship between owners, focusing in particular on conflicts between controlling and non-controlling shareholders. Most contributions under this perspective refer to emerging countries, where the diffuse patterns of concentrated ownership, combined with weak external governance mechanisms, result in frequent conflicts between controlling and non-controlling shareholders (Dharwadkar, George, & Brandes, 2000; Morck, Wolfenzon, & Yeung, 2005).

Both multiple agency theory and principal-principal theory emphasize critical issues in the analysis of firms controlled by multiple blockholders which are central for the purposes of our study. First, they recognize that shareholders represent an heterogenous set of actors, characterized by a diversity of objectives, interests, investment horizons, strategy and risk-level preferences (Colpan et.al, 2011; Cucculelli, 2009; David et al., 2010; Hoskisson et al., 2002; Munari, Oriani, & Sobrero, 2010; Pedersen & Thomsen, 2003). Under this light, the mixed results for owner influence on firm performance "[…] may be due in part to the preponderance of empirical studies that amalgamate diverse forms of owners despite important differences in their investment horizons and ability to affect firm actions" (Connelly et al., 2010, p. 1573). Second, both theories emphasize the importance of characterizing owners according to their identities in order to better identify the respective main interests they aim to. This passage is fundamental in order to identify cases in which interests are misaligned and may lead blockholders to compete with each other to gain private benefits. Such settings create thus a potential for "conflicting voices" among the various groups of shareholders (Hoskisson et al., 2002), and also a situation in which each agent may face conflicting choices concerning which principals' interests will be served.

4.2.4 Heterogeneous blockholders and performance in the banking industry

Previous studies that examined the ownership structure found that different types of ownership have different objectives. As a consequence, they are likely to influence in a different way the strategic behaviour of firms their invested in (Colpan, et al., 2011; David et al., 2010; Douma et al., 2006). For instance, a study by Colpan et al. (2010) in Japan shows that, foreign and domestic owners have different investment objectives and strategic preferences, related with firm diversification strategies and capital commitment. The relationships between diversification strategy and firm growth are stronger for the firms with

higher domestic rather than foreign ownership. At the same time, the relationships between diversification measures and profit outcomes are more positive in cases in which foreign investors have higher ownership than domestic investors.

The differences between large blockholders' interests and objectives as they are postulated by multiple agency and principal-principal theories are particularly relevant for ownership studies in the banking sector. As a matter of fact, banks are usually associated with other objectives besides profit maximization (Megginson, 2005). This is due to the central position of banks for the whole economic system and also to the nature of their business. In some cases, banks are even set up in order to pursue other objectives besides profitability, such as agent of economic development or agent to raise fund for group of business. The different additional goals followed by banks are usually related with the identity of the owners who control them and that usually play a big role in deciding the use of bank's resources, such as, for example, the type and focus of bank's lending to firms (La Porta et al, 2002b).

There are three major types of blockhoders' identities that are usually analyzed in the banking studies due to their relevance and diffusion in the corporate governance arrangements of banks across the world (Berger, Hasan, & Zhou, 2009; Micco et al., 2007): the *State* or *government*; *families* and *foreign financial institutions*. Each type of blockholder usually has distinctive objectives or interests besides profitability or value. Table 4.1 provides a summary of bank's objectives relative to the ownership identity.

Government-controlled banks may play a useful credit-smoothing role since their lending behaviour is much less responsive to macroeconomics shocks than the lending of private banks, both domestically and foreign owned (Micco and Panizza, 2006). This is related with their function as agents of development. The very high nonperforming loan ratios for state-owned banks could be a reflection of the different goals and lending directives of these organizations, since State owners may also be concerned with advancing other social or

political goals (Berger et al. 2005). Family banks are usually created in order to support their affiliated business by providing funds for the group necessities and by creating an internal market within the firm in order to try to circumvent restrictions on offshore financing. Therefore the close interrelationships between finance and ownership in these banks increase the level of connected lending (Claessens et al., 2001; La Porta et al., 2002b). Foreign banks and financial institutions' presence in one country are strongly driven by the will to expand and to increase banks' performance (Clarke et al., 2002). Since they have different priorities and business focuses (usually related with their portfolio diversification), their lending pattern tends to ignore domestic priorities (Bayraktar and Wang, 2004). Furthermore, foreign owners are often concerned with the value of their entire international organization, instead of focusing on the value of the single banks; they allocate greater shares of their lending portfolios to commercial and industrial loans instead of domestic banks and they have limited activities in small business lending (Clarke, et al., 2000).

Table 4.1

Identity of blockholders and bank's objectives

Bank's Objectives	Identity of the blockholder		
	Central Government	Families	Foreign Bank
Profit maximization	Low	Medium to High	High
Soundness	Low to medium	Medium	High
Social Welfare	High	Low	Low
Regional development	High	Low	Low
Access of financial service	High	Low to medium	Low
Portfolio diversification	Low	Medium to High	High
Connected lending	Medium	High	Low

Thus, one condition that could make MB negatively associated with a bank's and performance is the rise of potential conflicts in terms of objectives and priorities (Faccio, Lang, & Young, 2009). Considering such heterogeneity, we argue that the possibility of

conflicts is higher in banks controlled by blockholders that have different identities. This could ultimately decrease the bank's performance since these downsides could exceed the benefit from additional monitoring. Thus:

Hp 3: Ceteris paribus, a higher diversity in blockholders is negatively associated with bank performance.

4.3 Multiple blockholders in Indonesian banking industry

As follows we will provide a description of the research context in the attempt to explain its suitability and interestingness for the current research questions. The financial crisis in 1997-1998 forced the Indonesian Government to launch a complete restructuring program of the banking sector including nationalization of some private banks. After the restructuring process, the government launched a privatization program, in which some of the banks that had been nationalized were sold back to private investors. In addition, some of the state banks went public, even if the majority of shares were still held by the government. Moreover, there were frequent shares transfer activities in private banks from family owners to private investors, merger and acquisitions activities and so on.

We can find a more and more interesting landscape as we have a closer look to the shares distribution of each bank. Table 4.2 provides some examples of banks that experience dynamic ownership distribution. We see how banks have more than one blockholders with different identities. Their distributions of shares are also changing frequently in 2000 -2009 period. Such changes do not concern only share distribution among the blockholders, but also the changes in type of blockholders identities. From this it is easy to see that it might not be sufficient to focus only on major owners in order to capture ownership structure. During 200-2009 period, there are many banks that experience this kind of ownership structure changes in

Indonesia. It is interesting to investigate what is the impact of these changes, with a particular focus on their impact on bank performance.

Table 4.2
Example of Banks with Multiple Blockholders

	Initial Condition		First Change		Second Change	
	Shares	Identity	Shares	Identity	Shares	Identity
Example 1	26.87	Closed firm (Family)	24.43	Foreign	25.31	Closed firm (Family)
	20.88	Foreign	23.04	Foreign	24.43	Foreign
	18.67	Closed firm (Family)	14.14	Closed firm (Family)	23.03	Foreign
	15.52	Foreign	9.84	Closed firm (Family)	7.76	Foreign
	18.06	Public (<5%)	7.76	Foreign	7.68	Foreign
			7.68	Foreign	11.79	Public (<5%)
			13.11	Public (<5%)		
Example 2	97.17	Central government	31.55	Family firm	44.51	Family firm
	2.83	Public (<5%)	31.55	Foreign	44.51	Foreign
			26.17	Central government	10.98	Public (<5%)
Example 3	56.68	Central government	93.69	Central government	51.23	Foreign
	16.74	Closed firm (Family)	6.31	Public (<5%)	22.49	Central government
	26.58	Public (<5%)			26.28	Public (<5%)

4.4 Data and Methodology

4.4.1 Sample and data sources

Data on bank ownership and financial performance in Indonesia were collected from the Bank of Indonesia (the Indonesian Central Bank). We also used bank's financial reports derived from Bankscope and information on the banks' websites as complementary data sources. Using such sources, we were able to collect data on the whole population of Indonesian banks

over the period 2000-2009. Our final sample is constituted by 120 banks[5], for a total of 1147 observations, thus representing an unbalanced panel dataset.

4.4.2 Measures

4.4.2.1 Dependent variables

We measure *Bank Performance*, our dependent variable, using two different performance variables which are common in banking studies (Lin and Zhang, 2008). We use Return on Assets (***ROA***)*,* defined as the ratio between net income and total assets*,* in order to measure profitability. We also compute the ratio of Operating Expense to Operating Revenue (***OEOR***) for measuring efficiency. Whereas a higher ROA value indicates higher profitability, a higher OEOR value means lower efficiency levels.

4.4.2.2 Independent variables

Our independent variables try to capture a set of ownership arrangements related to the presence of MB. The variable *Numbers of Block* (***Blocks***) simply counts the number of different blockholders present in a bank in a given year. We identify blocks of shareholders basing on thresholds typically adopted in previous literature (Facio and Lang, 2002; Faccio et al., 2001; Holderness, 2009; Konijn et al., 2011). In our study, we define a blockholder as a shareholder owning shares summing to 5% or more. We use the 5% threshold since it is the level at which shareholders are required to reveal their ownership in Indonesia. Although there are some studies which also used a 10% threshold (Attig et al., 2009; Maury and Pajuste, 2005), given the lack of an accepted theory on block ownership, the prudent course of

---

[5] We decided to exclude Islamic banks from our sample since those banks have different activities and different regulations from conventional banks. We also excluded the branch bank since a branch bank is only a representative of foreign bank that run by a country manager who is responsible to the central office. This is not fit with our research question that explores ownership structure.We have to exclude nine banks from our sample due to incomplete data on ownership structure and financial reports. Most of them are banks that were closed or merged at the beginning of our sample period.

action is to have a sample of large shareholders as broad as possible (Holderness, 2009). Using information from the Bank of Indonesia, we were able to identify the ultimate ownership stakes of each bank, so that our definition of blockholders included both direct and indirect voting rights (Faccio et al., 2001).

To measure the degree of ownership concentration among blockholders (**Concentration**), we compute an Herfindhal index as done in the paper by Konijn et al. (2011). The index is computed as follows:

$$Herfindahl = \frac{[(\%BlockShare1) + (\%BlockShare2) + \ldots + (\%BlockShare5)]^2}{[(\%BlockShare1)^2 + (\%BlockShare2)^2 + \ldots + (\%BlockShare5)^2]}$$

where *BlockShare1* is ownership share of the first blockholder, *BlockShare2* is the ownership share of second blockholder, and so forth until the fifth blockholder. As done by Konijn et al. (2011) we use the scaled Herfindahl index, where scaling is performed using the total combined block ownership of the largest five blockholders. In this way, we are able to separate the effect of dispersion from the effect of total combined block ownership. The value of the Herfindal index increases as the ownership shares becomes more concentrated. Therefore, a low value of the Herfindahl index implies a low concentration and *vice versa*.

The third ownership variable we computed, *Diversity,* is a measure of ownership distribution across different categories of block shareholders. It is computed using an entropy index, which represents a modification of the entropy of product diversification introduced by Jacquemin and Berry (1979). We use entropy to measure the level of ownership dispersion by taking into consideration the number of owners' identity and the relative share of each identity in the total shares. To construct such variable, we first grouped blockholders into three different types of identity, using information provided by Bank of Indonesia:

Government (including in this category both central and regional governments)[6]; Families[7] and Foreign financial institutions[8].

We were thus able to compute the distribution of ownership shares in these three different categories. We then computed the entropy index as the weighted average of the shares of each identity group. The weight for each identity group is the logarithm of the inverse of its shares. Thus we computed entropy as follows:

$$Entropy = \sum_{i=1}^{n} P_i \ln \frac{1}{Pi}$$

Where, P_i represents the portion of shares of each owner's identity group to total shares of all blockholders shares. A higher value of the entropy index implies a higher dispersion of shares across blockholders with different identities.

4.4.1.3 Control variables

We also included in our analyses a series of control variables that are commonly used in studies on the banking industry in order to capture bank characteristics (Coleman, Esho, & Sharpe, 2002; Levine, 2002). We used the natural logarithm of bank's total asset (*Size*) to control for size effects. We then used a bank's market share, computed in each year as the ratio of a bank's asset to the total assets of the Indonesia banking industry (*AssetShare*), to control for market power effects. We also included the *share of non-interest revenue on total revenue* (*NonIntRev*), the ratio of *risk free securities* to total assets (*RiskFree*) and the share of *loans* to total deposits (*LDR*) to control for the loan portfolio orientation of each bank. We

---

[6] Concerning ownership by the *central government*, we included in this group large stakes held by: Ministry of Finance, State Agency, State-owned company, State-controlled cooperative; State-controlled foundation. While in the first case the control is ultimately under the Ministry of Finance, in the case of ownership by a regional government the control is under a regional institution, a province or a city government.
[7] We put also Individuals within this group, as done by Faccio and Lang (2002). We also include closed firms, since they are usually owned by a single individual of a family in Indonesia.
[8] We put foreign banks or foreign financial institutions in this category.

then computed the ratio of *fixed assets* relative to total assets (**FixedAss**) and the ratio of *human resources expense* to total expenses (**Person**) to control for the resource intensity of the banks. We finally included year dummies to control for temporal effects on performance. Table 4.2 presents the summary of all such measures.

Table 4.3
List of Variables

Variables	Measures
Return on Assets (**ROA**)	Net income divided by total assets (**Profitability**)
Operating Expense to Operating Revenue (**OEOR**)	Operating expense divided by operating revenue (**Efficiency**)
Numbers of Blocks (**Blocks**)	The number of blockholders
Blockholders' Concentration Ratio (**Concentration**)	Herfindhal index of the ownership shares of the five largest blockholders
Blockholders' Diversity (**Diversity**)	Entropy index of the distribution of ownership shares across different types of blocholders
Bank's Size (**Size**)	Logarithm natural of bank's total assets
Bank's Asset share (**AssetShare**)	Bank asset to total asset of the banking industry
Risk-free Asset Ratio (**RiskFree**)	Risk-free asset divided by total asset
Non-interest Income Ratio (**NonIntRev**)	Non-interest revenue divided by total revenue
Loan to Deposit Ratio (**LDR**)	Total loan divided by total deposits
Personal Expense Ratio (**Person**)	Salary expense divided by total asset
Fixed Asset Ratio (**FixedAss**)	Fixed asset divided by total asset

4.4.2 Methods

The initial regression model we use in our analyses is a pooled ordinary least squares (OLS) model with year dummies. Following Maury and Pajuste (2005), the OLS estimates in this model are calculated using the fully robust variance-matrix estimator, which allows for within-cluster (firm) correlation and heteroskedasticity (Maury and Pajuste, 2005). The robust estimator assumes neither particular kind of within-cluster correlation, nor particular form of heteroskedasticity. This specification relaxes the independence assumption required by the OLS estimator just to independence among the clusters (firms).

In the robustness check section of the paper, we also present the estimates computed with other regression models, in order to deal with specific econometric issues. A first critical

issue we dealt with is represented by the problem of endogeneity. According to previous literature, there is reason to believe that ownership structure is to some extent affected by firm performance, because the controlling owners may retain control only of firms with favourable prospects. Demsetz and Lehn (1985) and Demsetz and Villalonga (2001) argue that the market succeeds in bringing forth ownership structures that are close to optimal. They suggest that ownership structures are firm-specific because of the differences in the circumstances that firms face, such as economies of scale, regulation, and the stability of the environment in which they function. Moreover, a firm's decisions, also in terms of corporate governance arrangements, are influenced by expected performance (Demsetz and Villalonga, 2001). We therefore run additional econometric models to treat the ownership variables as endogenous. Following the paper of Maury and Pajuste (2005), we adopt the approach of Hermalin and Weisbach (1991) and use the lagged values of the ownership variables as their instrument variables. Since we find different changes that occur within banks in ownership over our sample period, we use this technique to control possible bias due to the joint endogeneity of our ownership variables. For example, good performance may result in higher ownership concentration, since the controlling owner might tend to retain control in firms with good performance. In this case the regression of performance on ownership variables would have been biased because of changes in ownership structure resulting merely from past performances.

4.5 Analyses and Results

4.5.1 Descriptive analyses

We first provide some descriptive statistics about our sample. Table 4.3 illustrates the distribution of the banks included in our sample according to the identity of the majority owners. In general, the number of banks in Indonesia has decreased over time, mainly as a

consequence of repeated merger and acquisitions (M&A) activities which characterized the restructuring phase of the industry. The number of banks that are owned by the central governments has decreased in the 2000-2009 period, due to the privatization processes of some nationalized banks. The share of family-controlled banks has also decreased, since some families could not afford to inject new capitals as the Central Bank increased the capital requirements. Besides, some family banks were closed or sold to foreign investors. On the other hand the numbers of banks owned by foreign investors has steadily increased as a result of the Central Bank policy to make the banking industry more open to foreign investments.

Table 4.4
Number of Banks in Indonesia and identities of major blockholders (2000-2009)

Identity of Majority Owner	Year									
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Central Government	17	16	14	12	10	10	9	10	8	9
Regional Government	26	26	26	26	26	26	26	26	26	26
Family	59	59	57	57	56	54	53	48	41	36
Foreign Investors	18	19	23	25	24	26	27	29	30	31
Total	**120**	**120**	**120**	**120**	**116**	**116**	**115**	**113**	**105**	**102**

Table 4.4 provides the distribution of banks, according to the presence of block holders. We found that, at the beginning of our sample period, the majority of banks registered the presence of multiple blockholders and that, as time passed, the numbers were reducing. This is the result of M&A activities and of the fact that some of majority shareholder were gradually buying the shares from existing blockholders. Table 4.4 documents however a significant share of Indonesian banks controlled by blockholders with different identities, ranging from around 25% of the banks in 2005 to 14% of the banks in 2009.

Table 4.5
Multiple blockholders (and related identities) in Indonesian banks (2000-2009)

Category	Year									
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Single Blockholder	54	55	56	56	52	51	53	56	57	59
Multi. Block. (same identity)	42	42	41	42	39	37	41	35	33	29
Multi. Block. (diff. identity)	22	23	23	22	25	28	21	22	15	14
Government & Family	*8*	*8*	*5*	*4*	*5*	*6*	*4*	*4*	*2*	*2*
Government & Foreign	*8*	*5*	*8*	*7*	*7*	*6*	*1*	*1*	*1*	*0*
Family & Foreign	*6*	*10*	*10*	*11*	*13*	*16*	*16*	*17*	*12*	*12*
Total	**120**	**120**	**120**	**120**	**116**	**116**	**115**	**113**	**105**	**102**

The results of descriptive statistic for each variable can be found in table 4.5. In order to avoid the impact of outlier observation, we dropped observations that have values below 1% quartile and above 99% quartile for each dependent variable and then ran the statistical analysis. First, we put banks into three categorical groups based on the presence of multiple blockholders, which are banks without the presence of multiple blockholders ownership, banks with the presence of multiple blockholders ownership and banks with the presence of multiple blockholders with different types of ownership identities. Then, using one way ANOVA we investigated whether there are differences between the three groups in terms of their ROA and OEOR. The null Hypothesis was that there is no difference between the three groups in terms of their ROA.

Table 4.6
Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Concentration	1142	68.431	30.374	8.0884	100
Diversity	1142	0.243	0.320	0.000	1.338
ROA	1142	0.020	0.043	-0.521	0.320
OEOR	1142	0.867	0.409	0.181	6.283
Person	1142	0.021	0.019	0.001	0.457
LDR	1142	0.750	0.545	0.012	9.290
FixedAss	1142	0.038	0.036	0.001	0.282
Riskfree	1142	0.193	0.163	0.000	0.928
NonIntRev	1142	0.081	0.087	0.002	0.801
lnAss	1142	14.398	1.864	9.375	19.730
MSass	1142	0.008	0.025	0.000	0.270

Table 4.7
Summary Statistics of ROA
Three Groups Multiple Blockholders Banks

Ownership's Category of Bank	Mean	Std. Dev.	Freq.
Non Multiple Blockholders	0.0293	0.0203	537
Multiple Blockholders	0.0125	0.0251	374
Multiple Blockholders-Different Owner's Identity	0.0186	0.0268	211
Total	0.0217	0.0245	1,122

Table 4.6 and Table 4.7 show the summary statistics of three groups. From ANOVA test output we found the f-value of 59.47 for ROA and 444.95 for OEOR have significances of less than 5%, and therefore we reject the Null Hypothesis. We also use Bonferroni techniques and we found that all categories create three subsets of the categories; all 3 categories are different as all significance at 0.05 level.

Table 4.8
Summary Statistics of OEOR
Three Groups Multiple Blockholders Banks

Ownership's Category of Bank	Mean	Std. Dev.	Freq.
Non Multiple Blockholders	0.7852	0.1963	534
Multiple Blockholders	0.8986	0.1875	370
Multiple Blockholders-Different Owner's Identity	0.9117	0.2657	211
Total	0.8468	0.2166	1.115

4.5.2 Regression results

We first ran six regression models separately for each dependent variable, ROA and OEOR, and each independent variable related to the presence of multiple blockholders. We introduced separately the ownership variables in order to avoid multicolinearity problem,

since Table 4.8 shows the presence of high correlation between the variables capturing the number of blockholders and concentration of ownerships stakes. Table 4.9 reports the results of our regression analyses.

From the regression results, we can conclude several findings. Firstly, the number of blockholders is negatively correlated with ROA, and the relationship is statistically significant at the 1% level. We can conclude that the increase in the number of blockholders is associated with a decrease of profitability, as measured by ROA (see Table 4.9, Column II). Similarly, the numbers of blockholders is negatively correlated with OEOR and the coefficient is statistically significant at the 1% level (Table 4.9, Column VI). This suggests that an increase in the number of blockholders is associated with lower efficiency levels for banks. In general, the results support our hypothesis that the number of blockholders is negatively related with bank's performance and.

Table 4.9

Correlation Matrix of All Variables

	ROA	OEOR	Blocks	Concentration	Diversity	LDR	Person	FixedAss	RiskFree	NonInt	AssetShare	Size
ROA	1.0000											
OEOR	-0.6890*	1.0000										
NumLS	-0.2604*	0.1928*	1.0000									
Concentration	0.3092*	-0.2209*	-0.8427*	1.0000								
Diversity	-0.0846*	0.1374*	0.3408*	-0.3803*	1.0000							
LDR	0.1214*	-0.0365	0.0114	0.0105	0.1050*	1.0000						
Person	-0.1799*	0.2739*	0.0685*	0.0187	-0.1510*	0.0662*	1.0000					
FixedAss	-0.3426*	0.3753*	0.2287*	-0.2471*	-0.0908*	-0.0934*	0.4986*	1.0000				
RiskFree	-0.0831*	0.0065	-0.0086	-0.0483	-0.0247	-0.2986*	-0.1996*	-0.0711*	1.0000			
NonIntRev	0.0427	-0.0268	-0.0843*	0.0654*	0.0969*	0.1835*	-0.2185*	-0.1396*	0.0386	1.0000		
AssetShare	0.0203	-0.0328	-0.1454*	0.0195	0.0097	-0.0779*	-0.1407*	-0.1175*	0.2201*	0.1309*	1.0000	
Size	0.1732*	-0.2026*	-0.2308*	0.1370*	0.1149*	-0.0585	-0.4060*	-0.4310*	0.1384*	0.2316*	0.6499*	1.0000

Table 4.10
Regression Results for ROA & OEOR

The table presents the regression results. The p-values (in parentheses) are based on robust standard errors that are corrected for clustering at the firm level. We also include year fixed effect but we do not show the results for space reasons. *,**,*** indicate significance at 10%, 5%, 1% levels, respectively.

Dependent Var.	ROA				OEOR			
Model	I	II	III	IV	V	VI	VII	VIII
Constant	0.013 (0.454)	0.025 (0.169)	.002 (0.888)	0.010 (0.566)	0.899*** (0.000)	0.811*** (0.000)	0.984*** (0.000)	0.944*** (0.000)
Blocks		-0.003*** (0.003)				0.023*** (0.005)		
Concentration			0.000*** (0.000)				-0.002*** (0.000)	
Diversity				-0.017** (0.011)				0.224*** (0.000)
Person	-0.086 (0.531)	-0.131 (0.352)	-0.192 (0.170)	-0.117 (0.408)	2.631*** (0.017)	0.010** (0.010)	3.626*** (0.002)	3.019*** (0.009)
FixedAss	-0.212*** (0.000)	-0.180*** (0.000)	-0.154*** (0.000)	-0.208*** (0.000)	1.519*** (0.000)	1.268*** 0.001	1.022*** (0.007)	1.470*** (0.000)
RiskFree	-0.012 (0.221)	-0.011 (0.246)	-0.010 (0.288)	-.012 (0.190)	0.070 (0.397)	0.063 (0.422)	0.055 (0.475)	0.074 (0.319)
NonIntRev	-0.011 (0.511)	-0.014 (0.402)	-0.016 (0.341)	-.010 (0.542)	0.274 (0.142)	0.295 (0.109)	0.310* (0.088)	0.261 (0.143)
LDR	0.004 (0.307)	0.004 (0.251)	0.005 (0.203)	0.005 (0.151)	-0.006 (0.884)	-0.010 (0.811)	-0.013 (0.752)	-.019 (0.623)
Size	0.001 (0.376)	0.001 (0.606)	0.001 (0.556)	0.001 (0.224)	-0.013 (0.179)	-0.010 (0.287)	-0.010 (0.262)	-0.018** (0.059)
AssetShare	-0.039 (0.381)	-0.047 (0.293)	-0.032 (0.521)	-0.054 (0.231)	0.461 (0.216)	0.528 (0.151)	0.411 (0.310)	0.665* (0.084)
Num Obs.	1,122	1,122	1,122	1,122	1,115	1,115	1,115	1,115
R^2	15.31	19.07	21.13	17.31	16.41	19.1	21.9	20.99

Moving to the influence of ownership concentration across blockholders on ROA, Table 4.9 (Column III) shows a positive coefficient of the Concentration variable, statistically significant at the 1% level. This suggests that the increase in blockholders concentration is associated with the increase in ROA. The Concentration variable is negatively correlated with OEOR, and that the relationship is statistically significant at the 1% level (Table 4.9, Column VII). This suggests that the increase in blockholders concentration is associated with the decrease in OEOR. Our results therefore support our second hypothesis, stating that the increase in ownership concentration (or, alternatively, lower ownership dispersion across blockholders) is associated with higher bank performance (both in terms of profitability and efficiency).

Third, Table 4.9, Column IV, shows that the diversity of blockholders is negatively correlated with ROA, the relationship being statistically significant at the 1% level. Moreover, the coefficient of the Diversity variable is also positive and statistically significant at the 1% level in the regression model with OEOR as dependent variable (Table 4.9, Column VIII). These results suggest that the increase in blockholders diversity is associated with the decrease in ROA and the increase in OEOR. We thus find support for our third hypothesis stating that the distribution of ownership across blockholders with different identities is negatively related with bank performance. The different identities of blockholders may thus lead to divergent objectives and conflicting voices between blockholders, ultimately hampering the financial results.

Finally, it is important to notice that, even though the regression results show that number of blockholders and concentration are statistically significant, the magnitude of the coefficients are very small. On the other hand, the magnitude of the coefficient Diversity is larger, especially on the model using OEOR as dependent variables, thus suggesting the importance of considering the heterogeneity of blockholders in the studies on ownership structures and performance.

4.5.3 Robustness check

In this section, we address some specific econometric issues underlying our analyses. First, we deal with the endogeneity of ownership. Following the analysis of Hermalin and Weisbach (1991), we use the lagged values of the ownership variables as their instrument variables. The results using instrumental-variable regressions reported in Table 4.10 largely confirm our previous findings that the number of blockholders and the blockholders' diversity have negative effects on bank performance, and that the blockholders concentration has a positive effect on bank performance.

Table 4.11
Regression Results Using Instrumental Variable

The regressions include all control variables and year dummies (not showed), as in the main regression models presented in Table 4.9. The p-values (in parentheses) are based on robust standard errors that are corrected for clustering at the firm level. *,**,*** indicate significance at 10%, 5%, 1% levels, respectively.

Dependent Var.	ROA			OEOR		
Constant	0.033* (1.77)	0.011 (0.60)	0.013 (0.75)	0.081*** (5.04)	0.969*** (6.40)	0.967*** (6.29)
Predicted Blocks	-0.003*** (-3.33)			0.025*** (3.11)		
Predicted Concentration		0.000*** (4.52)			-0.002*** (-4.02)	
Predicted Diversity			-0.016** (-2.36)			0.213*** (3.50)
Num Obs.	989	1,004	1,004	987	999	999
R^2 (%)	21.32	22.83	17.51	21.13	24.47	22.34

In our main regressions, we use OLS regression framework and control for clustering at the firm's level (which generally reduces the t-values), e.g., we do not assume that the within firm variation of variables is independent. As typical in dealing with panel data, we have also performed additional estimates based on fixed and random effects regressions to see whether some unobserved firm effects may bias our results. We have run the Hausman test the assumptions of fixed or random effect models. The test results show that, for the model with ROA as dependent variables, it is fit to use the random effect models. On the contrary, the test rejected the possibility to use the random effect estimator for the model on OEOR, and therefore we applied the fixed effect estimator. The regression results reported in Table 4.11 using random effect gave similar results to those reported in Table 4.9, based on OLS specification with control for clustering at the firm's level. The fixed effect models gave us slightly different results, probably as a consequence of the limited variation over time of the ownership variables. The variable number of blockholders and ownership concentration turned out to be insignificant in the OEOR regression, whereas the variable blockholders diversity maintained its positive and statistically significant effect. These different results

probably are due to the fact that fixed effect model is not fit for regression with dummy variables as independent variables.

Table 4.12
Regression Results Using Fixed & Random Effect

The regressions include all control variables and year dummies (not showed), as in the main regression models presented in Table 4.9. The p-values (in parentheses) are based on robust standard errors that are corrected for clustering at the firm level. *,**,*** indicate significance at 10%, 5%, 1% levels, respectively.

Dependent Var. ROA	ROA			OEOR		
	Random Effect			Fixed Effect		
	I	II	III	I	II	III
Constanta	0.034** (0.018)	0.015 (0.285)	0.022 (0.117)	0.960*** (0.000)	0.918*** (0.000)	0.935*** (0.000)
Independent Var.						
Blocks	-0.003*** (0.000)			-0.002 (0.778)		
Concentration		0.000*** (0.000)			0.000 (0.272)	
Diversity			-0.009** (0.017)			0.120*** (0.001)
Num Obs.	1,122	1,122	1,122	1,115	1,115	1,115
R^2 Overall	12.97	11.13	7.67	7.67	5.77	11.46

Finally, we wanted to test how robust our results are to an alternative performance measure. As an alternative dependent variable, we thus used return on equity (ROE), which is calculated as the operating profit divided by total equity. Similarly, we used the ratio of operational or overhead costs to total costs as an alternative variable for efficiency measurement. We also tried to use another measures for the concentration/dispersion of ownership, more precisely the HHI_difference (ownership dispersion) of five largest blockholders measured by: (BlockShare1-Blockshare2)^2 + (BlockShare2-Blockshare3)^2 + (BlockShare3-Blockshare4)^2 + (BlockShare4-Blockshare5)^2 , or the sum of squares of the shares differences between the first and the second blockholder, the second and the third blockholder, the third and the forth blockholder, and the forth and the fifth blockholder (Attig et al., 2009; Maury and Pajuste, 2005). The findings (not reported here) are generally in line with those using main models.

4.6 Conclusions

In this chapter, we have analyzed the effects of the presence of multiple blockholders on bank performance using data from Indonesian banking sector in 2000-2009. Not only have we focused on the distribution of ownership among blockholders, but we have also considered the distribution of shares between types of owners. In line with the predictions of multiple agency and principal-principal theories, we argued that the identities of multiple blockholders play a significant role in determining the effects on final performance.

In general we found that banks in Indonesia are mostly (55-60%) owned by single large shareholders. This figure is similar to a cross-country study by Caprio et al. (2007), showed that banks typically do not have dispersed ownership, but instead, are often controlled by large shareholders in term of families, foundations or the State. Moreover, Laeven and Levine (2009) argued that in countries with weak shareholder protection laws, size of shares is a crucial aspect. They found that concentrated ownership structure in those countries is associated with higher bank valuations.

We find that blockholders concentration has a positive impact both on bank's profitability and efficiency. Our results thus support our second hypothesis, stating that the increase in ownership concentration (or, alternatively, lower ownership dispersion across blockholders) is associated with positive impact on bank performance. This finding is in line with previous ownership studies in banking (e.g. Caprio et al., 2007; Ianotta et al., 2007; Laeven and Levine 2009; Shehzad, et al., 2010) and corporate governance studies in management and finance (e.g. Claessens, Djankov, Fan, and Lang, 2002; La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 2002b; Shleifer and Wolfenzon, 2002; Young et al., 2008) showing that, in developing countries characterized by weak owner protection laws, higher ownership concentration may have positive effects.

On the contrary, we find the number of blockholders has negative effects on both bank's profitability and efficiency. In general, the results support our hypothesis that the number of blockholders is negatively related with bank's performance and it is in line with results provided by Konijn et al. (2011), and by Singh and Davidson III (2003). The increase on blockholders number deters bank performance because it limits the ability of smaller blockholders to effectively challenge the largest blockholder (Cronqvist and Fahlenbrach 2009; Konijn et al., 2011).

Finally we also find that ownership dispersion across different types of blockholders (blockholders diversity) has negative effects on both bank's profitability and efficiency. This result confirms our hypothesis that an increase in blockholder diversity has negative impact on bank performance. The higher blockholders diversity is, the more it increases potential conflicts among blockholders in terms of objectives and priorities (Faccio, Lang, & Young, 2009). Moreover, the magnitude of the coefficient Diversity is larger, especially on the model using OEOR as dependent variables, thus suggesting the importance of considering the heterogeneity of blockholders in the studies on ownership structures and performance. Considering such heterogeneity, we argue that the possibility of conflicts is higher in banks controlled by blockholders that have different identities. This could ultimately decrease bank performance since downsides could exceed the benefit from additional monitoring.

Finally, we have also shown that our results are robust to different specifications and additional tests. The contribution to the literature on bank ownership performance, and the managerial and policy implications of such results will be discussed in the final chapter of the dissertation.

CHAPTER 5

Bank's Ownership, Business Orientation and Performance

5. 1. Introduction

Over the last two decades, we have witnessed dramatic changes in bank ownership, especially involving transition countries (e.g. Eastern Europe countries), emerging countries (e.g. Latin America) and some other countries hit by the economic crisis (e.g. East Asia countries). Changes in bank ownership have raised interesting policy questions and invited different communities of scholars to analyse the impacts of such changes on banks' performance, both at the micro and macro levels (Berger et. al., 2005, Bonin et al, 2005, Williams and Nguyen, 2005). Indeed, the answer to such a research question may provide important arguments on whether ownership policy can be used as a meaningful strategy to actively shape the banking industry.

Despite the abundance of studies on ownership or ownership changes in the banking literature, the impacts of governance changes are still not clear and we only have partial explanations about what happens during periods of governance changes. Previous works on

this topic usually conceive governance changes exclusively as a transfer from one type of ownership to another. Left unexplored are the mechanisms by which different types of owners may follow different kinds of goals besides profitability and thus have a different business orientation. Changes in governance or ownership may well reverberate on a bank's business orientation and on the choices regarding its portfolio (Berger et al., 2005; Clarke et al., 2000). In other words, changes in a bank's performance due to ownership changes are not only automatically linked to the agency problem, as often claimed (e.g. Williams and Nguyen 2005), but they are also associated to the ways in which a bank's strategy transforms when ownership changes. Modalities and extent of the variation in a bank's business orientation and asset portfolio may have an effect on performance, especially in the long-term.

Firstly, following the methodology proposed by Berger et al. (2005), we included variables that control for static, selection, and dynamic effects. We analysed performances differences among different types of ownership: central government-controlled banks, regional government-controlled banks, domestic banks, joint venture-foreign banks and branch banks. We also analysed the impacts of privatization (through public listing and foreign acquisitions), foreign acquisition of domestic private banks and domestic merger and acquisitions (M&As) on banks' performance.

Furthermore, in order to better understand the impact of ownership and governance changes, we extended the study of ownership changes on bank's performance by taking into consideration differences of business orientation among different types of ownership. We used Net interest Margin (NIM) determinants as a proxy for a bank's business orientation. Business orientation is related with banks' characteristics such as risk aversion level, market approach (focus on retail consumers vs. wholesale consumers), and diversification among different types of ownership (Cerruti et al., 2007; Valverde and Fernández, 2007; Williams, 2007). We analysed the ways in which different types of ownership might have a different business orientation and how this orientation, in turn, affected performance.

We explored these questions through an empirical analysis based on a sample of 133 banks in Indonesia, observed over the period 2000-2009. Indonesia banking provides a unique data-set well-fitted with our research goals. In the last decades, Indonesian banks have undergone remarkable changes of governance and their activities were marked by a number of events regarding governance changes, such as public listing, foreign acquisitions and M&As. The current ownership structure of the Indonesia's banking industry allows us to see various forms of banks' ownership, starting from government-controlled banks, domestic private banks mostly controlled by families, join-venture banks and branch banks. Such characteristics of the Indonesian banking industry have provided a suitable context for our research purposes.

For the first analysis, we apply the same approach proposed by Berger et al. (2005) that looked at the static, selected, dynamic and time effects of ownership types on performances. Following this approach, we differentiated the effects of ownership types on performance for those banks that have not faced any changes in ownership (static effect) and for banks that have faced some changes in ownership (selected effect) over the sample period. We will also assess the short-term (dynamic effect) and long-term (time effect) impact of ownership changes on performances. In the second analysis, we explore how each of sub samples of banks, based on ownership types, has different NIM determinants.

Our results indicate that regional banks, foreign banks and foreign branch banks manifest a better performance than domestic banks. We also found that banks undergoing privatizations and domestic M&As manifest a worse pre-event performance - in terms of higher overhead costs - than domestic banks that did not experience changes in ownership or governance. Privatizations through strategic selling to foreign investors, foreign acquisitions, and domestic M&As improve a bank's efficiency in the short-run, while in the long run they increase a bank's NIM.

Regarding NIM determinants analysis, we found different determinants for each group of ownership types. These findings lend support to the argument that the impact of certain interest margin determinants differs according to the type of bank ownership. Interestingly, we also observed that banks which experienced ownership changes show different NIM determinants different from the ones of banks that did not experience any changes in ownership. This result reveals that changes in a bank's ownership, such as foreign acquisitions, also have an impact on a banks' business orientation.

Our study contributes to the existing literature in three ways. First, it shades some more light on what happens to banks that undertake ownership or governance changes. Many of previous studies tend to view governance changes only as a transfer from one type of ownership to another and they attribute differences in performance, prior- and post-ownership change, only to the management ability associated with each type of ownership (e.g. Williams & Nguyen, 2005). Our analysis provides strong support for the notion that changes in ownership might shift a bank's business orientation and this, in turn, have an impact on a bank's performance. On this basis, information about the ways in which banks conduct their business after governance or ownership changes is crucial to gain a better understanding of the impacts of ownership changes on performance.

Second, it extends the study on NIM determinants (Demirguc-Kunt & Huizinga, 2000; Valverde and Fernández, 2007; Williams, 2007) by analysing how NIM determinants differ depending on the bank's ownership-type and on the existence of governance changes. The concept that determinants of banks' interest margins might differ by banks' ownership-type has not been properly explored in the literature so far. We suggest that the sources of interest-income and expenditures differ by banks' ownership. Thus, different banks' owners have different incentives, and consequently different strategies, when setting margins.

Third, our study provides a broader picture about the impacts of different types of banks ownership on performance. Only a few studies (Berger et. al., 2005, Bonin et al, 2005,

Williams and Nguyen, 2005) document the more nuanced, holistic view of state, foreign, and domestic ownership of banks. However, those studies did not capture some types of ownership which are common in emerging countries, such as regional banks and branch banks.

The remainder of the chapter is organized as follows: Section 2 provides a review of previous literatures that are related with our study. We will discuss the literatures on ownership in banking study. We will only provide brief summary of those literatures, since we already described them in more details in Chapter 2 of this dissertation. Moreover, we will also discuss previous literatures on NIM. Since we have not discussed literatures on NIM in Chapter 2, so in this section we will go into more details on these literatures. Section 3 will present a brief overview of the banking industry in Indonesia, especially the one related with ownership and governances changes that happened. Section 4 consists of two parts. In the first part, we will describe our sample and data. The second part discusses our empirical model and the methodology we used. Section 5 will report the empirical results. Section 6 will conclude with a brief summary focusing on the comparison of our results with the results of previous works related with our topic.

5.2 Literature review

5.2.1 Banks' ownership and performance

As shown in Chapter 2, a related stream of research has explored the influences of different types of owners on banks' performance (e.g. Claessens et al., 2001; Micco, et al., 2007; Berger et. al., 2005, Bonin et al, 2005, Williams and Nguyen, 2005). Within this framework, government and foreign ownerships are the two forms that have traditionally received central attention. Another common ownership type that characterizes the banking industry is the domestic large shareholder. Some studies in this stream take a further step by analysing the impact of ownership or governance change on performance (e.g. Berger et. al,

2005; William and Nguyen, 2005). Many studies on governance or ownership changes in the banking industry are grounded on transition countries (e.g. Grigorian and Manole, 2002; Bonin et al., 2005), since changes in governance are usually driven by a liberalization or deregulation of the banking industry, often linked to a strong shift in the economic system similar to the one experienced by east European countries in the beginning of 1990s. Another research context often explored by studies of governance changes is constituted by all those countries which have been hit by an economic crisis (e.g. Williams and Nguyen, 2005). Not only such countries usually have to open up their economies to deal with the impacts of the crisis, but they also need to implement a complete reconstruction of their financial sector, since this is usually the one wrecked the most by the crisis. As a matter of fact, the economic crisis is usually followed by many ownership changes, as demonstrated by a study by Williams and Nguyen (2005) that assessed governance changes in several Asian countries hit by the economic crisis in 1997.

Firstly, it is important to reconstruct the whole picture about what happened. Berger et al. (2005) emphasized the importance to account for the static and dynamic effects of all the major types of governance in one model of bank performance and they showed how, excluding one of those relevant effects could provide biased and misleading results. Secondly, despite the abundance of studies on ownership in the banking industry, little is still known about the impact of ownership changes on performance. Moreover, Berger et al. (2005) maintain that changes in ownership also modify banks' behaviour by showing that privatized banks shift their loan portfolio to more profitable loans. However, they did not give further explanation about the relationship between changes in ownership and changes in business orientation. Performance changes due to ownership changes are not only a matter of agency problems, as often claimed. It is important to consider that factors that determine changes in performance might be due to ownership rearrangements that ultimately translate into modifications of a bank's strategy. The mechanisms by which different types of owners may

follow different kinds of goals besides profitability, and thus pursue different strategies or portfolios, are still largely left unexplored. Previous studies on the topic of ownership revealed that usually different types of ownership have different objectives. As a consequence, they are likely to influence the strategic behaviour of their invested firms in different ways (Colpan, et al., 2011; David et al., 2010; Douma, George, & Kabir, 2006).

5.2.2 NIM determinants in the banking industry

Another stream of studies in the banking industry tries to decompose the factors underlying a bank's performance, and one performance indicator that was widely studied is the Net Interest Margin (NIM) (e.g. Barajas et al., 2000; Ho and Saunders, 1982; Saunders & Schumacher, 2000). The Net Interest Margin (NIM) is defined as the ratio of the spread between a bank's interest earnings and expenses to total earning assets (Saunders & Schumacher, 2000). NIM is important not only because this measurement can be used as a performance indicator for individual banks and the banking industry as a whole, but also because it can be used to analyse the ways in which banks conduct their strategies. Following the dealership/intermediation model, first introduced by Ho and Saunders (1981), banks are assumed to be intermediates that collect deposits and grant loans. NIM is a function of the interest that is charged to loans (price) and of the interest rates that banks pay to depositors (cost). Thus, NIM ultimately reflects the price of the intermediation services provided by banks (Williams, 2007). From an industrial point of view, it is still not clear whether high margins are good or band for the banking industry and social welfare (Williams, 2007). On the one hand, high margins may indicate problems in the regulatory banking environment and information asymmetry. On the other hand, higher margins can improve a bank's profitability, strengthen a bank's capitalization and solidify a bank's financial position by creating additional buffers against negative shocks (Barajas et al., 2000).

A number of studies have examined the determinants of banks' interest margins. While NIM reflects the price margin that banks charge, NIM determinants refer to the factors that influence banks in setting the level of that margin. We can categorize such determinants into two groups, the first one related with internal bank factors and the second with external factors. We define internal factors as a bank's business orientation related with banks' characteristics such as risk aversion level, market approach (retail vs. wholesale), and diversification (Cerruti et al., 2007; Valverde and Fernández, 2007; Williams, 2007). Instead, external factors are mainly related with market competition and economic conditions (Demirguc-Kunt and Huizinga, 2000; Demirguc-Kunt et al., 2004)

One of the most influential models in the analysis of interest margin determinants is the dealership model proposed by Ho and Saunders (1981). According to this model, an important factor influencing the size of a bank's margin is related with the level of bank's risk aversion. More recent studies try to complete the model by introducing new variables that are not considered in the dealership model. For instance, Maudos and Fernandez de Guevara (2004) proposed to consider the presence of cost inefficiencies associated with the production process, by explicitly incorporating the role of operating costs and providing a detailed description of the link between riskiness and the margins. The authors (Maudos and de Guevara, 2004) present a model which specifically differentiates between market risks and credit risks, as well as their interaction as separate factors affecting the margins.

One variable that is believed to have a substantial influence on bank's margins is ownership. As mentioned, sources of interest income and expenditures differ by banks' ownership (Demirguc-Kunt & Huizinga, 2000; Martinez-Peria & Mody, 2004). Thus, different banks' owners have different incentives, and consequently different strategies, when setting margins. The fact that determinants of banks' interest margins might differ by banks' ownership has not been properly investigated in the literature so far. Previous studies accounted for ownership only by introducing a dummy variable for it and assuming that the

impact of interest margin determinants would be the same across banks with different ownership structures (e.g. Demirguc-Kunt & Huizinga, 2000; Martinez-Peria & Mody, 2004). Results on the ways in which ownership impacts on NIM are still contradictive, especially if we compare the results collected in developed countries to the ones gathered in developing countries. Demirguc-Kunt & Huizinga (2000) observed that foreign banks accomplish higher margins than domestic banks in developing countries. The opposite conclusion holds for developed countries, in which domestic banks realize higher interest margins. In a follow-up study, Martinez Peria and Mody (2004) showed that foreign banks in Latin American countries exhibit lower interest margins than domestic banks.

In order to give a contribution to the literature on NIM determinants, we will focus on the different typologies of bank ownership and assess the differences of margin determinants among different types of owners. By doing this, we will analyse how a bank's business orientation transforms according to different ownership types. We will use a broad set of ownership types, including central government-controlled banks, regional government-controlled banks, private domestic or family-owned banks, foreign joint-venture banks and foreign branch banks. We will also investigate banks that experienced ownership changes in order to evaluate how rearrangements in ownership affect NIM.

5.3 The research context: the Indonesian banking system

There are three major policies conducted by the Indonesian government and the central bank to reshape and fortify the banking sector after the financial crisis in 1997-1998. First, the government started to launch a privatization program in 2001 when economic conditions were relatively stable. Some of the banks that had been nationalized were sold back to private investors, and especially to foreign ones. In addition, some of the state banks went public, even if the majority of shares were still held by the government. Second, the Government relaxed the ownership regulation regarding the foreign ownership. The government allowed

foreign investors to control up to 99% shares of a bank's ownership. Foreign investors were also allowed to take over domestic ones, including banks that participated in the privatization program. Third, Central bank tried to increase the strength of the banking industry by raising the capital requirements for banks. This policy also prompted some bank owners whose have limitation in financial support, to look for partners in order to increase bank capital. Increasing economic pressure on the banking industry pushed family owners to sell part of their shares to other investors. As a consequence, numerous family-owned private banks began to strategic actions such as selling shares to foreign investor, going public, or doing merger and acquisition activities.

Before the economic crisis in 1997, the central bank grouped banks into five cluster base on bank's ownership: central government banks, regional banks (owned by the province government), private domestic banks, foreign joint venture banks and foreign branch banks. This categorization was relevant before the 1997-1998 crises since it truly reflected the ownership condition of banks. Since there were significant changes in the ownership of banks, we suggest using different approaches to group banks. In this study we decided to group banks based on the identity of major owners or of the largest shareholders. Looking at the Indonesian banking industry in these days, we can divide banks into four groups, based on the different ownership identities that exist: central government banks, regional government banks, foreign banks, and Private domestic or family banks. The use of this categorization is supported by previous literatures (Faccio & Lang, 2000, La Porta, et al., 1999) and by the actual ownership conditions in Indonesian banking. We traced the ultimate owner of each bank, and then we analysed its identity to group it into the fit category. We believe that this approach is more suitable for the current ownership conditions in the Indonesian banking industry.

5.4 Data, model, and variables

5.4.1 Data

As a means of investigating the effects of ownership on performance and Net Interest Margin determinants, we explore whether we can measure performances differences among all the different types of owners and whether changes in ownership or governances have an impact on performance. The empirical sample consists of Indonesia banks active from 2000 to 2009.We decided to start our sample period in 2000 in order to avoid the direct effects of the 1997-1998 financial crisis that hit Indonesia and caused a complex process of bank restructuring that ended in 1999. Our final sample represents an unbalanced panel data and is constituted by 133 banks [9]. The number of banks has decreased continuously along the sample period due to the fact that some of them were closed or engaged in mergers and acquisition activities. Data on banks' ownership and financial performances have been collected from the Bank of Indonesia (Indonesian Central Bank). In addition, we used information from the Bankscope and banks' websites to complete the dataset and bring further specifications.

Table 5.1 provides a summary of the banks based on the type of ownership in 2000. It also provides changes that happened on those banks during 2000-2009. It can be noticed that there are two kinds of government banks, those which are owned by the central government and those which are owned by the regional government. In the case of Indonesia banking, private domestic ownership can be mostly characterized as the ownership by families/individuals or a closed firm controlled by a family. As for the last category, we identified three types of banks in foreign ownership: the branch bank, the joint venture bank. In addition two this two forms of foreign bank, there is also foreign-acquired bank which is domestic bank that is taken over by a foreign investor.

---

[9] In 2000 we count 148 banks registered in Bank Indonesia (Indonesia central bank). We excluded one government bank since it only specialized in credit for export and import and two Islamic banks since these banks have different kinds of financial products and reports. We also excluded 12 banks due to incomplete data.

Table 5.1
The Distribution of Banks Based on Ownership Types 2000

Type of Ownership	Period 2000	Period 2000-2009	
	Total Banks	No Changes	Changes
Central Government	18 [a]	0	6 (public listing) 6 (merger [b]) 6 (foreign acquisition)
Regional Government	26	26	0
Private Domestic	81	30 [c]	17 (foreign acquisition) 23 (M&As) 11 (closed)
Foreign	23	14	9 (closed)
Branch	10	10 [d]	1 (closed)

[a] *Including recapitalized and nationalized banks*
[b] *The merged bank then sold to the foreign investor*
[c] *Including two Islamic banks*
[d] *One branch bank was opened in 2003*

5.4.2 Models and Variables

Our first analysis focuses on the effects of a change in ownership on bank performance. Following the methodology originally proposed by Berger et al. (2005), we evaluate the static effects of maintaining different types of governance in the long term, the selection effects associated with different types of ownership changes and the dynamic effects of the two types of ownership changes. The basic regression model takes the following form:

(1) Bank Performance Measure = Constant + β_1*Static Ownership Indicators

+ β_2*Selection Ownership Indicators + β_3*Dynamic Ownership Indicators Dummies

+ β_4*Dynamic Ownership Indicator Years Since + β_5*Control variables

+ γ_1*Year Fixed Effects + Error Term

For our second analysis, we use a panel regression estimator to evaluate the impacts of various determinants on banks' interest margins among Indonesia banks that are characterized

by different ownership structures. We focus of NIM determinants that were related with a bank's characteristic. Our empirical specification takes the following form:

(2) Net interest Margin = Constant + β₁*LnAss + β₂*LDR + β₃*RiskFree + β₄*LoanAllow

+ β₅*PersonalExp+ β₆*FixedAss + γ₁*Year Fixed Effects + Error Term

The variables specified in (1) and (2) are defined in Table 5.2 and Table 5.3. Below, we will discuss the main variables by using the following categories: measures of performance, measures of governance changes, and NIM determinant variables.

5.4.2.1 Performance variables

In the bulk of our empirical analysis we focused on four performance measures. First, we used two measures of bank profitability, return on assets (ROA), defined as profits relative to total assets, and Net Interest Margin (NIM), define as the difference between the interest income generated and the amount of interest paid out, relative to the amount of earning assets. Next, we measured efficiency using the operating expense to operating income ratio (COI) and overhead cost ratio (non-interest expense to total assets).

5.4.2.2 Governance change variables

To analyse banks' changes in ownership, we employed the framework developed by Berger et al. (2005) whereby static, selection, and dynamic effects are considered together. This framework has already been applied to analyse different research contexts such as Argentina (Berger et al., 2005), Brazil (Beck et al., 2005a), Nigeria (Beck et al., 2005b) and South East Asia (Williams and Nguyen, 2005). We have developed different variables in order to grasp the different phenomena that are specific to our research context.

The static dummy variables identify those banks that have not faced any change in ownership over the sample period. Four static dummy variables are introduced, one for domestic banks (*static_domestic*), one for regional domestic banks (*static_regional*), one for foreign banks (*static_foreign bank*), and one for branch banks (*static_foreign branch*). These dummy variables equal 1 for the corresponding banks for all time periods. All the central government banks have experienced privatization processes either through strategic selling or public offering. This is why we have chosen to cluster them within the selection dummy variables. Domestic banks comprise the excluded reference cases, and thus the coefficients on the static dummies measure performance differences between the domestic banks and other groups of banks that maintain the same ownership structure.

The selection dummy variables identify those banks that have faced some change in ownership over the sample period. Five selection dummy variables are introduced, one for government banks that were privatized by strategic selling to foreign investors or foreign banks (*selection_priv. foreign*), one for government banks that were privatized by public listings (*selection_priv. listing*), one for banks whose majority was acquired by foreign banks or firms (*selection_foreign acquisition*), one for domestic banks that experienced mergers and acquisitions (*selection_domestic M&As*), and one for banks that were closed or exited from the industry (*selection_closed*). The selection dummy variables equal one for the corresponding banks for all time periods. In the regression, the coefficients of the selection dummies identify the performance difference between domestic banks and the groups of banks that have been selected to undergo some types of ownership change. We intentionally separated banks that experienced privatization into two different groups since we found different characteristics between these two groups. Firstly, banks that experienced privatization through public listing were owned by the government even before the 1997 crisis occurred, while banks that experienced privatization through foreign acquisitions were formerly owned by domestic private shareholders, before banking restructuring in 1999.

Secondly, banks that experienced privatization through public listing were still under control by the Central Government since the government still owned the majority of shares. On the contrary, banks that experienced privatization through foreign acquisitions are controlled by foreign investors now.

The dynamic dummy variables identify those banks for which the selection dummies take the value 1 to capture the precise moment in which the ownership change took place. Four dynamic dummy variables were introduced, one for government banks that were privatized through public offering (*dynamic_priv. listing*), one for government banks that were privatized through strategic selling to foreign investor or foreign bank (*dynamic_priv. foreign*), one for domestic banks whose majority of shares was acquired by a foreign bank or firm (*dynamic_foreign acquisition*) and one for domestic banks that experienced merger and acquisitions (*dynamic_domestic M&As*). We did not consider the dynamic dummy variable for closed banks since we obviously could not have data succeeding the moment of closure. These dynamic dummy variables equal one for the corresponding banks for all time periods starting from the second year following the given intervention, and equal zero for the periods prior to the ownership change and for all periods in which the banks did not experience any ownership changes. The dynamic dummy variables capture the one-time changes in performance that arise at the time of the interventions.

However, interventions may be persistent, that is, they may also have a long-term impact. We therefore introduce variables that measure the time that has elapsed since the event occurred. Since we use yearly observations in our sample, these variables are measured with an annual frequency. Four dynamic time indicators are introduced, one for banks that have been privatized through public offering (*time_priv. listing time*), one for banks that have been privatized through strategic selling to foreign investor or foreign bank (*time_priv. foreign*), one for banks that were at least partially acquired by a foreign firm (*time_foreign acquisition*), and one for banks that have experienced merger and acquisitions (*time_domestic*

M&As). Typically, the time variable equals one in the year following the change, two in the second year following the change, and so on[10].

5.4.2.3 NIM determinants

We consider six main determinants of bank interest margins, especially that related with bank's business orientation: risk aversion level, market approach and diversification (Cerruti et al., 2007; Ho and Saunders, 1981; Maudos and Fernandez de Guevara, 2004; Valvedere and Fernandez, 2007; Williams, 2007). The first variable of bank's business orientation is risk aversion level. The ratio of government securities held to total assets *(**RiskFree**)* is used as a proxy for bank risk aversion. As the government security is more liquid than the loan, a higher proportion of government securities in total assets indicate a greater risk aversion and it is expected to reflect in lower margins.

The second variable that related with bank's business orientation is market approach. We used fixed asset to total asset ratio (***FixedAss***) to proxy banks coverage, since the largest part of a bank's fixed asset is constituted by their branches and offices, including all the equipments used for bank services (e.g. ATM machines). A bank may choose to focus upon the retail segment, with its associated distribution costs or a less costly (in terms of distribution costs) wholesale focus. Each of these strategies may yield identically sized loan portfolios but generate differences in cost structures. Given that there is some heterogeneity in the bank size and strategy, it is felt that controlling for these differences in the study sample is appropriate. This retail intensiveness will be measured by the individual bank branch network. It would be expected that those banks with larger branch networks would have higher production costs per loan and that these costs would be reflected in the bank net interest

---

[10]Following Berger et al. (2005) and Nakane and Weintraub (2005), we deleted observations in the year of and the year following the events. Thus, the time variable starts with two for the second year following the change. This treatment mitigates noise associated with the ownership change, for example, the legal fees, consultant expenses, due diligence costs, updating of strategies, etc.

margin. On the one side, the increase in fixed effect ratio can lead to wider bank coverage and thus can increase bank's interest margin. On the other hand, higher fixed assets could also decrease the interest margin since fixed asset is a non-interest bearing assets. Therefore, we do not have a particular prior estimation regarding the expected sign of this coefficient.

Finally we use **LDR** to proxy bank's diversification. **LDR** is the ratio of loan to deposits. The higher of LDR means that bank more focus to have revenue form lending activities. Since bank put most of its fund for lending activities. LDR also proxy of the liquidity risk faced by banks. Loan is the part of a bank's assets that gives the highest return. However loans are also an illiquid asset. Thus an increase of loans in relation to the deposits of the bank means a higher liquidity risk for the bank and the margins. Table 5.3 provides description summaries of the individual variables, as well as of the anticipated sign of their impact based on the theoretical argumentation.

Additionally, we put three other indicators that reflect banks' characteristics. **LnAss** is the logarithm of total assets, included as a proxy for the size of operations. The theoretical model predicts a positive relationship between the size of operations and margins, since for a given value of credit and market risk, larger operations are expected to be connected to a higher potential loss. On the other hand, economies of scale suggest that banks that provide more loans should benefit from their size and have lower margins. Therefore, we do not have a particular prior estimation regarding the expected sign of this coefficient. **CreditRisk** measures the credit risk faced by individual banks. We us the ratio of non-performing loans to total loans as proxy for credit risk. Banks with a higher ratio of allowance for doubtful loans face higher credit risk, and this is likely reflected in the charging of higher margins. **PersonExp** is the ratio of personnel expenses to total assets. This measure captures the impact of operational costs on the margin. Banks that incur in high operational costs tend to transfer these costs to their customers by increasing interest margins, so the estimated coefficient is

expected to be positive. As a result, the estimated coefficient for this variable is expected to be negative.

Table 5.2
Variables employed in governance changes models

Symbol	Description
ROA	Return on asset
OEOR	Operating expense to operating revenue
NIM	Net interest Margin
OH	Non-interest expense to total asset
static_domestic	Dummy indicating a domestic private bank that underwent no changes in ownership over the entire 2000–2009 interval. Equals 1 or 0 for all periods for a bank.
static_regional	Dummy indicating a regional bank that underwent no changes in ownership over the entire 2000–2009 interval. Equals 1 or 0 for all periods for a bank.
static_foreign	Dummy indicating a foreign bank that underwent no changes in ownership over the entire 2000–2009 interval. Equals 1 or 0 for all periods for a bank.
static_branch	Dummy indicating a foreign branch bank that underwent no changes in ownership over the entire 2000–2009 interval. Equals 1 or 0 for all periods for a bank.
selection_priv. listing	Dummy indicating a state-own bank that underwent a public listing over the entire 2000–2009 interval. Equals 1 or 0 for all periods for a bank.
selection_priv. foreign	Dummy indicating a state-own bank that underwent a strategic selling to foreign investor over the entire 2000–2009 interval. Equals 1 or 0 for all periods for a bank.
selection_foreign acquisition	Dummy indicating a domestic bank that underwent a strategic selling to foreign investor over the entire 2000–2009 interval. Equals 1 or 0 for all periods for a bank.
selection_domestic M&As	Dummy indicating a domestic bank that underwent a strategic selling to foreign investor over the entire 2000–2009 interval. Equals 1 or 0 for all periods for a bank.
selection_closed	Dummy indicating a state-own bank that underwent closing over the entire 2000–2009 interval. Equals 1 or 0 for all periods for a bank.
dynamic_ priv. listing	Dummy indicating the years following a bank's privatization through public listing. Equals 0 prior to the bank's change and 1 starting the second year following the change. Observations in the year of and the year following the change are deleted. Equals 0 for all periods for banks that did not undergo a privatization through public listing.
dynamic_ priv. foreign acquisition	Dummy indicating the years following a bank's privatization through strategic selling. Equals 0 prior to the bank's change and 1 starting the second year following the change. Observations in the year of and the year following the change are deleted. Equals 0 for all periods for banks that did not undergo a privatization through foreign acquisition.
dynamic_ foreign acquisition	Dummy indicating the years following a domestic bank's strategic selling to foreign investor. Equals 0 prior to the bank's change and 1 starting the second year following the change. Observations in the year of and the year following the change are deleted. Equals 0 for all periods for banks that did not undergo a foreign acquisition.
dynamic_ domestic M&As	Dummy indicating the years following a bank's merger and domestic acquisition. Equals 0 prior to the bank's change and 1 starting the second year following the change. Observations in the year of and the year following the change are deleted. Equals 0 for all periods for banks that did not undergo a merger and domestic acquisition.
Time_ priv. listing	Number of years since a privatization through public listing. Equals 0 for all periods prior to a privatization bank's public listing and starts with 2 for the second year following the change. Observations in the year of and the year following the change are deleted
time_ priv. foreign acquisition	Number of years since a privatization through foreign acquisition. Equals 0 for all periods prior to a privatization bank's foreign acquisition and starts with 2 for the second year following the change. Observations in the year of and the year following the change are deleted
Time_ foreign acquisition	Number of years since a foreign acquisition. Equals 0 for all periods prior to a bank's foreign acquisition and starts with 2 for the second year following the change. Observations in the year of and the year following the change are deleted
Time_ domestic M&As	Number of years since a merger and acquisition. Equals 0 for all periods prior to a bank's merger and acquisition, and starts with 2 for the second year following the change. Observations in the year of and the year following the change are deleted
Lnasset	Log of total assets in period t _ 1 for each bank.
Loans to banks ratio	The percentage of loans to banks to total assets
Fee income ratio	The percentage of non-interest revenues in total revenues.
Year fixed effects	Year dummies, with 2000 excluded as the base case.

Table 5.3
Variables employed in NIM determinants models

Symbol	Description	Anticipated sign
PersonExp	The ratio of personnel expenses to total assets	+
RiskFree	The ratio of government or risk-free securities held to total assets	-
CreditRisk	The ratio of allowance for doubtful loans to total loans	+
LnAss	The logarithm of total assets	+/-
FixedAss	The ratio of fixed asset to total asset	+/-
LDR	The ratio of loan to deposits	+

We argue that determinants of a bank's interest margins might differ by bank ownership. For this purpose, we have grouped banks into five sub-samples: central government-controlled banks, regional government-controlled banks, domestic private banks, foreign-owned banks (including branch bank) and Foreign-acquired. We categorized each bank into one of these groups based on the identity of the large shareholders who owned the majority of shares (more than 50%). We estimated NIM determinant model in each ownership subsamples, to capture differences in the interest margin determinants among different types of ownership.

5.5 Empirical results

5.5.1. Ownership, Governance changes and performance

We first report the results of our main tests of the effects of ownership changes on the considered bank performance measures. We then briefly discuss the findings on the relation between ownership structure and bank performance. Table 5.4 shows the distribution of the sample based on ownership and governance changes. The numbers of observation that we use for regression are different with the sample we collected due to some missing values and the exclusion of outlier data that would harm the regression result[11].

---

[11] For each variable, we accounted for potential outliers by dropping 1 percentile from both tails. We also dropped banks of which we had only one year data since we ran panel data regression.

Table 5.4
The Distribution of the Samples

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
Domestic	28	28	28	28	28	28	28	28	28	28	280
Regional	26	26	26	26	26	26	26	26	26	26	260
Foreign	14	14	14	14	14	14	14	14	14	14	140
Branch	9	9	9	10	10	10	10	10	10	10	97
Gov listing	6	6	6	6	6	6	6	6	6	6	60
Gov FA	12	12	8	8	8	8	8	8	7	7	76
FA	16	16	15	15	15	15	15	14	12	12	145
M&A	18	18	17	17	15	14	14	13	8	7	137
Closed	4	4	5	5	3	3	2	2	1	1	30
Total	133	133	128	129	125	124	123	121	112	111	1235

Table 5.5 reports the results for all regressions we have done. For each dependent variable we ran two different regressions. We excluded control variables in the first regression and plugged them in the second one. We found differences in the estimated coefficients of those two regressions, especially in the model which uses NIM as a dependent variable. We suggest this happened because control variables which are proxies of a bank's characteristics have a correlation with the type of ownership and they jointly influence performances, especially NIM. This figure is in line with our premise of second analysis that different types of ownership have different characteristics or business orientation, thus each type of owners might influenced differently by a set of NIM determinants.

We will only discuss the results of the regression that included control variables, since it provides more robust results. As far as the static effects are concerned, results show that the estimated coefficients of regional banks dummy are positive and significant for ROA, NIM and OH. Instead, the estimated coefficient for OEOR was negative and significant. This means that regional banks have higher profitability (in term of ROA and NIM) and higher productivity efficiency (proxy by OEOR) than domestic banks. However, regional banks' operating efficiency (proxy by OH) was lower than the one of domestic banks. The estimated coefficients of foreign and branch banks were both positive and statistically significant in the

97

ROA regression. Instead, in the OEOR regression their estimated coefficient was negative and statistically significant. We also find that the estimated coefficient of foreign banks is negative and statistically significant in the OH regression. However, we found that the estimated coefficient of branch bank was not statistically significant, although it also takes a negative sign. We observed that the estimated coefficients of foreign and branch banks for NIM were both positive but not statistically significant. This means that foreign and branch banks have higher profitability than domestic banks in term of ROA, but not in terms of NIM. They also show higher production and operation efficiency as compared to domestic banks.

Regarding the selected variables, the results show that the estimated coefficient for privatized banks (through public listings and foreign acquisitions) and M&As banks are positive and statistically significant in OEOR and OH regression. This means that privatized bank and M&As banks have lower efficiency than domestic banks that experienced no governance changes. Moreover, the estimated coefficient of M&As banks in ROA regression is negative and statistically, thus banks that underwent M&As have a lower profitability than domestic banks that experienced no governance changes. Regarding banks that exited during sample period, we find that the estimated coefficient in NIM regression was negative and statistically significant, thus we argue that closed banks have lower net interest margins than domestic banks that experienced no governance changes. This result suggests that banks will exit the industry only after they experience a negative margin. Finally, we do not find evidence that banks which had undergone a foreign acquisition are significantly different from domestic banks in terms of profitability and efficiency.

In evaluating the dynamic effects of privatization (through public listing and strategic selling to foreign investor), foreign acquisitions to private domestic banks, and domestic M&As, we note that the estimated coefficients of the foreign acquisition in privatization programs and domestic bank acquisitions are negative and statistically significant in the OH regression. This suggests that in the short run changes in bank's ownership into foreign

ownership and domestic M&As decrease the level of overhead costs (increase the levels of operating efficiency). However, the estimated coefficients of dynamic M&As is negative and statistically significant in the NIM regression. This result leads to the conclusion that in the short run merger and acquisitions might lead to a decrease in interest margins. We find that estimated coefficients of dynamic listing were not statistically significant for all endogenous variables. Finally, we do not find evidence that privatization, foreign acquisitions, and domestic M&As have impacts on ROA in the short run.

The estimated coefficients of dynamic time variables for foreign acquisitions (both in privatization programs and domestic private bank take over), and domestic M&As are positive and statistically significant in NIM regression. In the long run, foreign acquisition and merger and acquisitions seem to increase the bank's interest margin. However, we can not find evidence about the impacts on efficiency. Instead, the estimated coefficient of dynamic time variable for foreign acquisition of domestic private banks is positive and statistically significant in the OH regression.

Finally, when we turn to time-indicator variables, we found that the estimated coefficients for foreign acquisitions (both privatization and general foreign acquisitions) and domestic M&As were positive and statistically significant in NIM regression. This result means that, in the long-run, foreign acquisitions and M&As increase the level of NIM. The new owner usually tends to come up with new strategies and a refreshed business orientation. While economization measures can be carried out in a relative short period of time, the implementation and results of new strategies usually require longer periods of time. In addition, in the long-run we can find that foreign acquisitions and M&As have a significant impact on the reduction of overhead costs. Moreover, we observed that, in the long-run, foreign acquisitions (excluding privatization foreign acquisitions) increase the level of overhead costs.

Table 5.5
Regression results – Ownerships on Performances

The table presents the regression results. The t-stats (in parentheses) are based on robust standard errors that are corrected for clustering at the firm level. We also include year fixed effect but we do not show the results for display's space reason. *,**,*** indicate significance at 10%, 5%, 1% levels, respectively.

	ROA		OEOR		NIM		OH	
Constanta	0.014***	0.000	0.920***	1.190***	0.055***	0.135***	0.035***	0.104***
	(3.94)	(0.02)	(32.53)	(11.34)	(13.24)	(7.67)	(13.04)	(7.40)
Static								
Regional Government	0.017***	0.015***	-0.145***	-0.108***	0.035***	0.043***	0.004	0.012***
	(4.62)	(3.62)	(-5.65)	(-3.85)	(6.41)	(7.51)	(1.13)	(3.29)
Foreign	0.019***	0.017**	-0.208***	-.238***	-0.013**	0.005	-0.011**	-0.015**
	(3.37)	(2.54)	(-4.02)	(-3.55)	(-2.25)	(0.63)	(-2.32)	(-2.46)
Branch	.011**	0.013**	-0.138***	-0.257***	-0.024***	0.011	0.003	-.009
	(2.20)	(2.06)	(-2.94)	(-2.99)	(-4.04)	(1.14)	(0.47)	(-0.89)
Selected								
Privatization-Listing	-0.004	-0.008	0.002	0.079*	-0.019***	0.007	-0.010***	0.012*
	(0.25)	(-1.24)	(0.07)	(1.76)	(-3.03)	(0.72)	(-2.74)	(1.94)
Privatization-Foreign Acquisition	0.003	0.003	0.012	0.053	0.006	0.040	0.007	0.024***
	(0.17)	(0.14)	(0.16)	(0.46)	(0.21)	(1.38)	(0.65)	(3.29)
Foreign Acquisition	-0.004	-0.005	0.014	0.015	-0.010*	-0.006	-0.001	0.002
	(-0.91)	(-1.26)	(0.41)	(0.54)	(-1.84)	(-1.24)	(-0.31)	(0.48)
Domestic Merger & Acquisition	-0.016***	-0.015**	0.212***	0.134**	-0.010	-0.006	0.020**	0.016**
	(-2.73)	(-2.55)	(2.75)	(2.54)	(-0.99)	(-0.64)	(2.20)	(2.08)
Closed/Exit	-0.011	-0.011	0.199***	0.165	-0.045***	-0.022**	0.007	0.001
	(-0.88)	(-0.86)	(2.75)	(1.04)	(-3.66)	(-2.30)	(0.47)	(0.09)
Dynamic								
Privatization-Listing	0.002	0.001	0.010	0.014	0.008	0.008	0.005	0.006
	(0.25)	(0.08)	(0.16)	(0.22)	(0.53)	(0.64)	(1.00)	(0.94)
Privatization-Foreign Acquisition	.002	-0.002	-0.127*	-0.138	-0.024	-0.025	-0.014	-0.018**
	(0.15)	(-0.10)	(-1.72)	(-1.19)	(-0.86)	(-0.90)	(-1.16)	(-2.24)
Foreign Acquisition	-0.000	0.001	0.003	0.010	-0.011	-0.013	-0.014**	-0.014*
	(-0.05)	(0.12)	(0.06)	(0.19)	(-1.55)	(-1.61)	(-2.47)	(-1.91)
Domestic Merger & Acquisition	0.003	0.005	0.247	0.238	-0.045**	-0.032**	-0.037***	-0.050**
	(0.55)	(0.69)	(0.61)	(0.73)	(-2.14)	(-2.28)	(-3.55)	(-2.33)
Time Indicator								
Privatization-Listing	.001	0.001	-.011	-0.012	0.002*	0.002	-0.001	-0.001
	(0.54)	(0.62)	(-0.56)	(-0.58)	(1.80)	(0.81)	(-0.56)	(-0.87)
Privatization-Foreign Acquisition	-0.000	-0.000	.013	0.019	0.003***	0.003***	0.001	0.002
	(-0.17)	(-0.30)	(1.01)	(1.38)	(3.26)	(2.90)	(0.72)	(1.30)
Foreign Acquisition	-0.000	-0.001	.002	0.007	0.003**	0.006***	0.001	0.003**
	(-0.19)	(-0.53)	(0.24)	(0.72)	(2.47)	(3.99)	(1.60)	(2.01)
Domestic Merger & Acquisition	0.002	0.001	-.110	-0.075	0.010**	0.009**	-0.001	0.006
	(1.69)	(0.53)	(-1.15)	(-0.95)	(2.21)	(2.53)	(-0.30)	(1.53)
Control Variable								
Lagged Ln Asset		0.001		-0.024***		-0.005***		-0.006***
		(1.27)		(-2.77)		(-3.76)		(-5.11)
Loan to Deposit Ratio		0.000		0.022*		-0.000		0.001
		(0.46)		(1.79)		(-0.84)		(1.32)
Non Interest Income		-0.013		0.500*		-0.085***		0.096***
		(-0.85)		(1.71)		(-4.99)		(3.03)
R²	21.47%	22.03%	21.71%	35.27%	36.25	43.67%	11.86%	24.93%
Observations	1166	1036	1182	1049	1180	1048	1179	1046

5.5.2 Ownership and NIM determinants

This section provides empirical evidence for our second analysis. Using a panel data analysis[12], we examine the NIM determinants of banks in Indonesia and evaluate the differences among different types of ownership. Table 5.6 shows the movements of NIM during 2000-2009 periods, segmented by bank type. The average of NIM of all banks has registered an ascending trend during 2000-2004, but it changed during 2005-2009 when the average of NIM tended to decrease (except for 2008). The average of NIM for each type of ownership showed a similar trend. Regional banks have the highest NIM average of all ownership types, followed by domestic bank. These pictures confirm our previous analysis that regional have higher NIM than domestic banks, while foreign bank have lower NIM. A broad description of variables used in the study is given in table 5.7, which reports their descriptive statistics. Table 5.8 shows the correlation matrix of all variables.

Table 5.6
Net Interest Margin in 2000-2009

		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	All
Central	Mean	2.66%	4.35%	4.48%	5.13%	6.53%	6.36%	5.77%	5.81%	5.98%	5.68%	5.27%
Gov	StDv	2.95%	2.50%	2.06%	2.30%	2.81%	2.93%	2.72%	2.54%	2.18%	1.81%	2.56%
	Obs	6	6	6	6	6	6	6	6	6	6	60
	Mean	6.83%	10.32%	10.43%	10.06%	11.25%	10.66%	9.66%	8.62%	9.73%	9.13%	9.65%
Regional	StDv	2.23%	2.68%	2.23%	2.86%	2.99%	2.77%	2.43%	2.48%	2.25%	1.99%	2.73%
Gov	Obs	26	24	25	23	25	25	26	26	26	26	252
Private	Mean	3.95%	6.43%	5.88%	6.20%	7.52%	7.17%	6.81%	6.54%	6.51%	6.46%	6.34%
Domestic	StDv	1.74	2.94%	2.80%	2.42%	2.38%	2.41%	2.41%	1.83%	1.91%	1.92%	2.45%
	Obs	28	27	28	28	28	28	27	28	28	28	278
Foreign	Mean	4.57%	4.39%	4.47%	4.10%	3.94%	4.81%	5.62%	5.28%	4.96%	4.51%	4.67%
	StDv	1.56%	2.33%	2.47%	2.35%	2.14%	2.55%	2.61%	2.61%	2.19%	1.84%	2.30%
	Obs	24	23	23	24	24	24	24	24	24	23	37
Foreign	Mean	3.83%	4.93%	5.17%	5.45%	6.61%	6.22%	6.00%	6.25%	6.05%	6.07%	5.65%
Acqui.	StDv	2.57%	2.75%	2.59%	1.88%	2.32%	1.94%	1.85%	2.39%	1.82%	1.97%	2.34%
	Obs	24	24	25	24	24	25	25	24	21	21	237
All	Mean	4.50%	6.11%	6.12%	6.23%	7.30%	7.12%	6.76%	6.52%	6.70%	6.47%	6.37%
	StDv	2.57%	3.62%	3.37%	3.30%	3.61%	3.31%	2.93%	2.65%	2.75%	2.59%	3.18%
	Obs	127	124	128	127	125	124	124	122	114	112	1227

---

[12] We will use the Hausman test to choose whether to use, the fixed effect or the random effect panel models.

Table 5.7
Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
NIM	1228	0.064	0.032	-0.0237	0.1664
NPL	1240	0.059	0.088	0	0.7159
Person	1227	0.209	0.091	0.0437	0.4873
Fixed	1225	0.035	0.029	0.0028	0.1929
RiskFree	1242	0.184	0.151	0	0.6595
LDR	1227	0.721	0.345	0.0723	2.6936
LnAss	1252	14.505	1.859	9.3750	19.7299

Table 5.8
Correlation Matrix

	NIM	LDR	Person	Fixed	RiskFree	NPL	LnAss
NIM	1.0000						
LDR	0.0221	1.0000					
Person	0.5333*	-0.0425	1.0000				
Fixed	0.1622*	-0.1368*	0.1338*	1.0000			
RiskFree	-0.2819*	-0.3905*	-0.1936*	0.0032	1.0000		
NPL	-0.3157*	0.1019*	-0.2088*	-0.0013	0.0342	1.0000	
LnAss	-0.1563*	-0.0089	-0.2079*	-0.4337*	0.1234*	-0.0282	1.0000

Correlation coefficient significantly different from zero at 5% level

Next, we report the results of NIM regression. Table 5.9 shows all the results of the regressions. The first column reports estimation results for the baseline specification and for the entire sample of Indonesian banks. First, the estimated coefficient for operating costs (PersonalExp) is positive and statistically significant, thus an increase in operating costs will translate into the increase of margin. This in line with our theoretical prediction and confirmed the results obtained in previous research, the operational costs incurred by banks are transferred to their clients through the charging of higher margins for financial services.

The estimated coefficient for credit risk (NPL) is negative and statistically significant. Thus the increase of NPL will lead to an increase in margins. This result contradicts the findings collected by some previous literature (quote). The negative sign we obtained can be explained using the "market discipline argument" (William, 2007; Karas, Pyle and Schoors, 2008). Following this argument, depositors require a higher premium for depositing their

savings in riskier banks (e.g. banks with higher non-performing loan ratio). An increase in deposit rates ceteris paribus would contribute to a decline in interest margins, establishing a negative relationship between non-performing loans and margins. For instance, Williams (2007) observes a negative association between credit risk and interest margins for Australian banks. With the exception of the market discipline explanation mentioned above, the negative sign could also imply that these banks do a poor job in controlling for credit risk when they set their margins.

We found that the estimated coefficient for liquidity risk (LDR) was significant and positive. This result is in line with previous studies that also use the variable of liquidity risk. As the liquidity risk increases, banks tend to increase their margins to compensate the increase of risk they have to burden. In the case of Indonesian banking, this result also shows that loans are still the main sources of banks revenues. Assuming that others factor are constant, the more deposits are transformed into loan, the higher the interest margin.

Further, we analysed NIM determinants model in each sub-sample that we categorized based on the type of ownership: central government-controlled banks, regional government-control banks, domestic private banks, foreign-owned banks (including branch bank) and Foreign-acquired. We found that the results in each ownership sub-sample were different from the results obtained using the total sample. Columns 2 to 6 report estimation results for the baseline specification and for each type of ownership sub-sample. The estimated coefficient for personnel expenses is positive and statistically significant. This is also consistent across all ownership groups (except for regional banks). As we discussed previously, this finding is in line with previous empirical studies which implied that all banks respond similarly to the increase of operational costs by transferring these costs on their clients through higher margins charged for their financial services.

Table 5.9
Regression results – NIM Determinants

The table presents the regression results. The t-stats (in parentheses) are based on robust standard errors. We also include year fixed effect but we do not show the results for display's space reason. *,**,*** indicate significance at 10%, 5%, 1% levels, respectively.

	All Bank	Central Gov	Reg Gov	Domestik	for	FA
LnAss	0.000	0.0026	-0.008***	0.007**	0.000	-0.006*
	(0.21)	(0.85)	(-3.14)	(2.34)	(0.03)	(-1.81)
LDR	0.011**	0.0385*	0.040***	0.020**	0.005	0.006
	(2.60)	(1.79)	(4.38)	(2.24)	(1.53)	(0.67)
RiskFree	-0.008	-0.011	-0.017	0.003	0.049***	-0.033*
	(-0.92)	(-0.73)	(-1.56)	(0.21)	(4.29)	(-1.97)
CreditRisk	-0.032**	-0.029	-0.119***	-0.075**	-0.008	-0.030**
	(-2.33)	(-0.83)	(-5.11)	(-2.52)	(-1.05)	(-2.32)
PersonExp	0.054**	0.2627***	0.023	0.181***	0.034*	0.090***
	(2.89	(9.31)	(0.74)	(4.73)	(1.71)	(3.00)
FixedAss	0.077	-0.512**	-0.016	0.133*	0.587***	-0.200*
	(0.86	(-1.98)	(-0.19)	(1.88)	(3.16)	(-1.75)
Constanta	0.024	-0.051	0.168***	-0.090**	0.020	0.138**
	(0.57	(-0.84)	(3.70)	(-2.07)	(0.58)	(2.48)
Observations	1180	60	251	266	232	234
R-Sq within	25.00	69.68	46.81	44.87	26.51	46.61
R-Sq overall	26.61	87.11	54.50	37.26	3.95	11.79
Hausman test						
Prob>chi2	0.000***	0.9163	0.7300	0.9064	0.9163	0.0000***
	Fixed	Random	Random	random	Random	Fixed

The estimated coefficient for Credit risk is negative and consistent across all ownership groups. They are all statistically significant except for the central government banks and the foreign banks. As we discussed earlier, this finding is in line with the market discipline perspective. Following this argument, depositors require a higher premium for depositing their savings in riskier banks (William, 2007; Karas, Pyle and Schoors, 2008). The result on credit risk could also indicate a more aggressive strategy of regional government, domestic private and foreign acquired banks fighting for market shares and thus willing to accept higher credit risks without raising their margins.

As for the case of central government and foreign bank, credit risk did not significantly affect their margins. This can be motivated by two explanations. Central government banks in Indonesia control the largest shares of the market and they are expected to be bailed out by the state when they encounter problems. Thus, depositors in the central

government bank are not very sensitive with the level of NPL since they believe that central government banks are likely to bankrupt. A similar situation applies for foreign banks. Depositors believe that foreign banks are part of big international banks and thus they perceive that foreign banks are les likely to collapse. The second reason is because central government banks are usually involved in government programs and state-owned enterprises (SOEs) lending, so the cost of risk is less likely to translate into increased margins than in the case of other banks with different types of ownership. Instead, foreign banks are backed by their parents abroad, so they are not really influenced by credit risks.

The estimated coefficient for liquidity risk (LDR) is positive and consistent across all ownership groups. They are all statistically significant except for foreign banks and foreign-acquired banks. As we stated earlier, the increase of liquidity risk will drive banks to raise their margins to compensate the risk escalation. Moreover, the more banks can channel their loans, the higher the margins they can obtain, since the spread between loan interests and deposit interests is higher than the interest-spread of other bank's financial assets. On the other hand, liquidity risk (LDR) does not significantly affect NIM of foreign banks and foreign acquired-banks. Foreign banks might not be aggressive enough in channelling their loans. Moreover, they usually focus on non-interest revenues as alternative sources of income. Regarding the size of operations, we find that the estimated coefficient for domestic banks is positive and significant, indicating that larger domestic banks charge higher margins. On the other hand, the impact of the size of operations on NIM is negative for regional banks and foreign acquired banks, suggesting that scale economies play a more prominent role in setting interest margins than potential losses per unit of operation. In their attempt to expand their presence in the market, foreign acquired and regional government banks might be tempted to decrease their margins as soon as they start to benefit from economies of scale.

Finally, the estimated coefficients of FixedAss for private domestic and foreign banks are positive and statistically significant. These results suggest that private domestic and

foreign banks translate increase on their service coverage into higher margins. On the contrary, the estimated coefficients of FixedAss for central government and foreign acquired banks are negative and statistically significant. For the central government, the result is in line with previous researches. Since the central government banks are involve with government programs, usually the increase in government coverage are for social purposes. While for foreign acquired banks, the result confirmed previous results that foreign acquired banks are more aggressive to expand their presences in market. Thus, they are willing to decrease their margin to get more market shares.

The differences of NIM determinants among different types of ownership in banking further indicate that these banks are involved in different types of operations. An interesting picture is revealed if we compare NIM determinant among domestic, foreign and foreign-acquired banks. We can see that foreign acquired banks are different from domestic and also from foreign banks. This indicates that changes in ownership might also change a bank's business orientation and strategies. However, changes are always gradual and require a long time to unfold. Based on these findings, we establish the proposition that the impact of ownership or governance changes is influenced by the ways in which changes in business orientation and strategies take place.

Overall, our results suggest that there are substantial differences in the role played by bank interest margin determinants across ownership groups. Results for the total sample presented in the previous section are driven by the combination of all sub-samples, since each sub-sample has a similar number of observations, except for the Central Government bank. However, central government banks still hold a substantial part of the banking sector assets. Therefore, disregarding the ownership structure as a factor of analysis might lead to erroneous conclusions about the impact of interest margin determinants in Indonesia.

5.6 Conclusions

The purpose of this study was to evaluate how banks' performance is affected by different types of ownership and changes in it. Furthermore, we also analyse how different types of ownership have different business orientations. We argue that this knowledge is important in explaining the relationship between ownership and performance. The empirical sections of the paper make use of an unbalanced panel data set of 133 banks in Indonesian banking industry, with annual observations from 2000 to 2009. After the Asian Crisis 1997, the Indonesian banking sector underwent some huge transformations. As the results, the current ownership structure of the Indonesia's banking industry allows us to see various forms of banking ownership, starting from government-controlled banks, domestic private banks mostly controlled by families, join-venture banks, and branch banks. These various forms of ownership have provided a context fitted with our research purposes.

In the first analysis, given the varied nature of ownership changes during the sample period, we extended the model of Berger et al. (2005) that controls for static, selection, and dynamic effects. We found that regional banks, foreign banks and branch banks have a higher profitability than domestic private banks. While foreign and branch banks' profitability is mostly influenced by their efficiency, on the other hand, regional banks profitability is propelled by their interest margins. We also find that government banks that underwent privatization and domestic banks that underwent M&As have higher overhead-cost levels or lower efficiency. Instead, banks that were closed during period of 2000-2009 have lower interest margins. In the short run, foreign acquisitions and domestic M&As can reduce the level of overhead costs but this effect vanishes in the long run, when foreign acquisition and M&A can increase the Net Interest Margin.

Now, we will try to compare our results with the ones collected by previous empirical research. First of all, regarding the static effects, we found that foreign banks (including the branch banks) were more profitable (higher ROA) and more efficient than domestic banks.

These findings are consistent with the empirical literature (Bonin et al., 2005; Claessens et al., 2001; Demirgüç-Kunt & Huizinga, 1999). In developing countries, foreign banks are more profitable and efficient than their domestic counterparts; as a matter of fact, they are more likely to pursue profit-maximizing opportunities than government or domestic blockholder-controlled banks, which may be deterred by the presence of ulterior motives such as social motives or business group motives (Claessens, et al., 2001; Micco, et al., 2007). Foreign banks will thus be more likely to direct their investments to those firms or industries with better prospects for profit.

Interestingly, we find that regional banks have a better profitability in terms of ROA and NIM than domestic banks. We argue that this happens because regional banks have an access to regional government budget. Although there are no specific regulations that obligate each regional government to deposit money in its own regional bank, in practice, this is a situation that usually verifies. Actually, most transactions imply the territorial bank: for example, the payroll for public servants is usually managed by regional government banks. This privilege has given regional banks more access to "cheap" funding. Moreover, regional banks have a monopoly power since they only focus to operate in one province. They have operations in rural areas of the province where the availability of loan services by banks is quite limited. This monopoly power is usually transferred into higher interest margin (Saunders and Schumacher, 2000). Due to this particular condition, regional government banks can charge higher interests as a compensation for the costs that they sustain in providing such services. Besides the fact that regional government banks have more profitability, we also found that they have lower operating efficiency. We argue that, similarly to central government banks, regional banks are also vulnerable to political interventions even though not as pervasively as in central government banks.

With respect to the selection effects, results suggest that, in terms of operating efficiency, banks involved in privatization processes underperform domestic banks that do not

undergo ownership changes. This result is congruent with those of previous empirical research. For example, Berger et al. (2005) find that Argentine banks that were privatized recorded poor performance prior to privatization. The underperformance of banks associated with government ownership is also consistent with previous empirical findings. Most of the existing empirical findings support the arguments that government banks have lower performance (lower profitability and/or lower efficiency) because they have other goals besides profitability, because they are susceptible to frequent political interventions and they often have a poor management (Sapienza, 2004; Clarke et al., 2005; Classens and Peters, 1997; Djankov, 1999; Shirley and Nellis, 1991; World Bank, 1995). Moreover, we could not find evidence that foreign investors tend to target profitable banks, although we could not find confirmations that foreign bank target not profitable banks either.

Regarding the effects of governance changes (dynamic-dummy variables), the estimated coefficient of foreign acquisition (both privatization and general foreign acquisition) and domestic M&A is negative and statistically significant in the OH regression. This result means that, in the short-run, foreign acquisition and M&A activities can reduce the level of overhead costs. This result is in line with some previous studies (Berger et al., 2005, Lin and Zhang, 2009). As it happens for non-bank firms, governance or ownership changes in banks are usually followed by economization measures including organization restructuring and employee rationalization. The new owners and management usually start reviewing the scope of bank activities; they focus on profit-generating activities and lay off the activities with lower profitability.

In the second analysis, we provide the first evidence on the determinants of bank-interests' margins in Indonesia with a particular emphasis on a bank's characteristics and the role of bank ownership. Unlike previous studies, which evaluate the impact of bank ownership by introducing dummy variables, we estimate separate regressions for banks with different ownership structures. This technique allowed us to see how the impact of interest

margin determinants varies across different ownership structures. Our findings lend support to the hypothesis that bank ownership moderates the impact of the theoretically motivated determinants of the bank's interest margin. Our results are in line with previous researches by Demirguc-Kunt and Huizinga (2000) and Martinez-Peria and Mody, 2004, that found ownership has an impact on NIM determinants.

Results for the total sample presented in the previous section are driven by the combination of all sub-samples, since each sub-sample has a similar number of observations, except for the central government bank. However, central government-controlled banks still holds a substantial part of the banking sector assets. Overall, our results suggest that there are substantial differences in the role played by banks' interest margin determinants across ownership groups. Therefore, disregarding the ownership structure as a factor of analysis might lead to erroneous conclusions about the impact of interest margin determinants in Indonesia. The obtained results emphasize the importance of taking into account bank ownership structure and call for a reassessment of previous empirical findings on interest margin determinants, especially of those panel data studies that include countries with significant variations in the banking ownership structure. Moreover, the results also provide new evidence about the impact of ownership changes on performance, especially with regards to the banking industry.

CHAPTER 6

Conclusions and Further Studies

6.1 Conclusions

Our studies ere developed in order to understand the emergence of new types of ownership structure and provide, with respect to the status quo of the reference literature, further information on the relationship between such ownership types and performance particularly in the effort to capture what happens within firms that experience ownership changes. For doing that, we are using data from the Indonesian banking sector in 2000-2009 to provide an empirical analysis that we have articulated in two different studies.

In the first study we have analysed the effects of the presence of multiple blockholders on bank performance by focusing on the distribution of ownership, in particularly on the distribution of shares across different ownership's identities among blockholders. We find that the number of blockholders have negative impacts both on bank profitability and efficiency. On the contrary, blockholders concentration has positive impacts both on bank profitability and efficiency. Moreover, we observe that the ownership dispersion across

different types of blockholders has negative effects on both bank's profitability and efficiency. Our results are robust to different specifications and additional tests, in particular to those conducted to take into account the endogenous nature of ownership structure.

We extended studies on multiple blockholders by looking at the heterogeneity of blockholders. We argue that the way shares are distributed across large owners with different identities plays a significant role in determining the impact of governance arrangements on performance. We claim that looking only at the concentration or dispersion of shares, without considering also the identity of shareholders provides, only a partial perspective to study principal-agent or principal-principal problems. Second, we suggest that - given the increase of complexity and dynamism in ownership structures around the world, and in particular in emerging countries - traditional agency theory may be not sufficient to fully understand how internal governance systems affect firms' strategies and results. The recourse to multiple agency and principal-principal perspectives (Arthurs and Johnson, 2008; Connelly et al., 2010; Hoskisson et al., 2002; Young et al., 2008) can provide a deeper insight to explain what happens in multiple blockholders firms. Third, this study shows the importance of considering ownership composition among blockholders in banking studies. While the topic of corporate governance structures has been widely investigated in banking studies (Berger et al., 2005; Bonin et al., 2005; Caprio et al., 2007; Shehzad et al., 2010), most of the works have focused only on dominant or major shareholders, without taking into account ownership composition and the joint presence of blockholders with multiple identities.

Our second study aimed to evaluate how bank performance has been affected by types of ownership and by changes in types of ownership. Furthermore, we have also analysed how different types of ownership bring about different business orientations. We argue that this kind of information is important in explaining the relationship between ownership and performance. By extending the model of Berger et al. (2005) that controlled for static, selection, and dynamic effects of ownership types on performance, our work shades light on

types of ownership that have been ignored in previous studies but which are common in emerging countries, such as regional banks or branch banks. After controlling for bank characteristics and time, we observed that ownership types (owner's identities) do have an impact on performance. In addition to that, ownership changes have impacts on performance both in the short and in the long-run. Furthermore, we provided evidence on how the determinants of the banks' interest margins, reflecting banks' business orientation, vary across different ownership types. Moreover, we also found that changes in ownership lead to changes in bank business orientation.

Our second study contributes to the existing literature in three ways. First, it shades some more light on what happens to banks that undertake ownership or governance changes. Many of previous studies tend to view governance changes only as a transfer from one type of ownership to another and they attribute differences in performance, prior- and post-ownership change, only to the management ability associated with each type of ownership (e.g. Williams & Nguyen, 2005). Our analysis provides strong support for the notion that changes in ownership might shift a bank's business orientation and this, in turn, have an impact on a bank's performance. On this basis, information about the ways in which banks conduct their business after governance or ownership changes is crucial to gain a better understanding of the impacts of ownership changes on performance. Second, it extends the study on NIM determinants (Demirguc-Kunt & Huizinga, 2000; Carbo-Valverde & Rodriguez-Fernandez, 2007; Williams, 2007) by analysing how NIM determinants differ depending on the bank's ownership-type and on the existence of governance changes. The concept that determinants of banks' interest margins might differ by banks' ownership-type has not been properly explored in the literature so far. We suggest that the sources of interest-income and expenditures differ by banks' ownership. Thus, different banks' owners have different incentives, and consequently different strategies, when setting margins. Third, our study provides a broader picture about the impacts of different types of banks ownership on performance. Only a few

studies (Berger et. al., 2005, Bonin et al, 2005, Williams and Nguyen, 2005) document the more nuanced, holistic view of state, foreign, and domestic ownership of banks. However, those studies did not capture some types of ownership which are common in emerging countries, such as regional banks and branch banks.

6.2 Limitations and future research avenues

We acknowledge that the present studies have some limitations. The first group of limitations is related with both of the empirical analysis in this dissertation. First of all, we recognize that focusing on a single industry (banking industry) can reduce the generalization potential of our findings. One of the conditions that might influence our findings is the fact that the banking industry is a strongly regulated and highly monitored industry. These conditions could influence the relationship between ownership and performance. For example, highly regulated conditions have left little possibility of expropriation by controlling shareholders (Maury and Pajuste, 2005). This, in turn, might determine that the benefits induced by additional control of blockholders in banking sector are lower than the conflicts raised by additional blockholders.

The second limitation is related our single country analysis. Similarly with previous limitation, analysing a single country can make our results not transferable to other institutional environments. However, using a single-country approach enabled us to study the whole population of banks active over a long period of time, thus providing a unique context to test our hypotheses. Among the specificities of the Indonesian context which might affect our findings, we can mention the level of transparency and the legal protection for minority shareholders in the country. For example, the level of transparency has a significant effect on the relationship between ownership structure and performance (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2002[b]; Shleifer and Wolfenzon, 2002). Indonesia, as other emerging countries, has a low legal protection of minority shareholders. This makes the agency costs of

114

disperse ownership larger than concentrated ownership. This might also be the reason why concentrated ownership is more appropriate for Indonesia since it will be able to reduce agency costs. Our results are also in line with other previous researches in emerging countries which found that concentrated ownership has a positive impact on firm performance or firm value in emerging markets. In addition to that, as pointed out by numerous studies (Peng, 2004; Peng, Buck, & Filatotchev, 2003; Young, Ahlstrom, Bruton, & Chan, 2001), in emerging economies internal governance arrangements based on dominant owners are focused on ownership, because of the weak external legal infrastructures that often do not adequately protect investors. Without trying to devaluate the presence of agency conflicts, we argue that conflicts among owners are more relevant in this context. As highlighted by principal-principal theories (Young et al., 2008), in emerging economies the tendency of conflicts between principal-principal are relatively high. As a consequence of the conflicts between majority and minority shareholders, ownership concentration and sharing control within the firm becomes a crucial dimension to analyse (Lopez-de-Foronda, López-Iturriaga, & Santamaría-Mariscal, 2007).

Comparisons of the relation between control contestability and firm performance in countries with different degrees of investor protection seem an interesting topic for further research. Further evidence is thus needed to replicate our results in other sectors and different institutional contexts. We do believe, however, that the results of our work shed a new light on the importance of more carefully considering the heterogeneity of blockholders in the studies on ownership structure and firm performance. Our work also provides new evidence about the impact of ownership changes on business orientation and performance. It is paramount to take into consideration variations in business orientations brought about by ownership rearrangements, since in turn, these will play a key role in determining performance.

The second group of limitations is related with each of empirical study. Regarding with the specific limitation of first study, it is still not clear by which mechanism the presence of multiple shareholders with different identities impact on performance. Our result only reveal that the increase in shares distribution among different type of blockholders have negative impact and our assumption is this happen because the increase in conflict between blockholders. However, how this conflict translates into decrease in performance is still not known. For instance, does it impact related on the size and composition of the board directors? In order to increase our understanding of the precise mechanisms through which a governance structure with multiple large shareholders affect firm performance, more theoretical research in this area is needed.

The second limitation of our first empirical study is that we referred the impact of only on financial performance. It is interesting to expand the impact also on others type of performances such as bank's value and bank's risk. Moreover, we know that each of ownership identity have different king of goals beside profit or financial performance. For instance government bank have social and development goal or family bank might have motivation to help affiliated company. Using several performance indicator would be help to understand more about how the interaction of between ownership identity and its particular motives.

Concerning with the limitation of the second empirical study, we are using NIM determinants as an indicators of bank's business orientation. Although NIM determinants might reflect the factor that influenced banks in setting their service prices, but they might not directly reflect bank's business orientation. The next research should be more focus on variables that directly reflect the bank's business indicators, although the limitation of data availability might be obstacles to construct those variables. Secondly, our study provides evidence that changes in ownership influence banks' business orientations and we argue this will have impacts on performance. However, we are not providing evidence how far the

changes in business orientation as a result of changes in ownership will have impact on performance.

6.3 Policy implications

As a matter of policy implications of the results of our studies, we can draw several proposal at managerial and industry/country level. Our first study is intended to create greater awareness of principal-principal conflicts that usually happen in emerging country and to reiterate the point that corporate governance in emerging economies does not closely resemble the stylized agency theory model centred on principal-agency conflicts. The results confirm the limitations of research that focuses predominantly on widely held firms or on firms with a single large shareholder. We found that the performance of banks with high blockholder concentration differs from that of other banks). Moreover, the evidence presented in first study expands our understanding of the link between ownership structure and performance. Our results showing that the presence of other blockholders or the presence of multiple blockholders not necessary give positive contribution to performance by providing the contestability to the leading shareholder's and minimising the expropriation of minority shareholders. In fact, multiple blockholders can bring negative consequence on performance.

The managerial implication that can be drawn for the results of our first study is the importance of corporate governance system that can exploit the additional monitor from the presence of multiple blockholders and in the same time also can minimise the potential conflict that might happen. There several ways to achieve such corporate governance system that provide suggested by previous study. First is what is called as German and Japanese corporate governance systems (Shleifer and Vishny, 1997). These systems are often credited with reducing agency problems while avoiding the most egregious PP conflicts associated with concentrated ownership. This is often achieved through a strong network of owners, creditors, employees, and government. Another potentially promising avenue for examining

how to address PP conflicts is the idea of controlling coalitions (Bennedsen and Wolfenzon, 2000). With controlling coalitions, ownership and control are distributed among several large owners and no individual shareholder is large enough to control the firm. This makes it much harder, for example, to divert funds from the corporation as such an action would require interaction (or collusion) among major coalitions. Advocates of coalitions maintain that controlling shareholders have incentive to set up such an arrangement as this creates a credible commitment (a form of bonding) that they will not undertake unilateral action to expropriate funds. However, we still need some researches to analyse on whether the German–Japanese model and controlling coalition model are fit and realistic for corporate governance reforms in emerging economies.

Our first study result could also be useful for regulators or government. Although our result refer that ownership concentration bring positive impact for financial performance, but it is not necessary that concentrated ownership is the optimal arrangement for the welfare of the society. Concentrated ownership increases the likelihood of the expropriation by controlling owner that will result in the unfair treatment of minority shareholders. Moreover, controlling owner might not promote strategies that are in the best interests of organizational performance and this could bring negative externalities to society. This is particularly unfortunate given the impoverished populations among which many of these firms operate. In the case of banking sector, the cost could be very high. As what happen in Indonesia when 1997-1998 Asian crisis interrupted, the miss management of banks make bank sector very vulnerable to economic shock and the government need to spend huge amount of money to restructuring the banking sector.

Thus, it is important for regulators to minimise the opportunity of expropriation by controlling shareholders. Specific to Indonesian banking industry, bank central needs to prevent misbehaviour by controlling owners that could be harmful. For example impose more strict regulation in connected lending activities. Related with the legal framework of

ownership, the government needs to increase the regulation in shareholder protection. The stronger shareholder protection will increase the effectiveness of additional control by other blockholders (La porta, et al., 1999). Moreover, our data analysis shows that most of the banks are have concentrated ownership that can be seen as the result of low ownership protection. From this we also suggest that bank's regulation is not the substitution of legal framework on shareholder protection. In summary, resolving PP conflicts in emerging economies requires creative solutions beyond the standard approaches. Individual countries will likely need to work out solutions to their own particular institutional conditions (Young et al., 2008). As such, resolving PP conflicts in emerging economies could improve the living standards for potentially millions of people (Morck et al., 2005).

Our second study tries to bring some explanation about relationship of ownership type and performance. From managerial point of view, our result highlight that changes in ownership might also changes bank business orientation. Since different type of ownership have different objectives and preference, the management must be ready to changes their strategies when there is a change in ownership. The issue is how to make the transformation going smoothly. Although we also find that it will take consider a time for bank's that experience changes in ownership to become more profitable.

Regarding with the government ownership in banking, our results provide some support for ongoing bank ownership reform. We find the government ownership is negatively related to bank performance especially with efficiency. Although we find that regional banks on average are relatively more profitable than private domestic bank however we also find that regional banks have lower operating efficiency. Off course it would be not fair using financial performance as a bench mark to evaluate the importance of government ownership on bank. Since government bank have different role. However our results highlight the efficiency is the problem.

We do not come to such a clear conclusion concerning foreign acquisition. Foreign banks were not appeared to cherry-pick their acquisitions. Whilst banks taken over by foreign institutions have improved their efficiency, however the impact seems only in the short run. Since our result can not find the long term effect of foreign acquisition on efficiency. Moreover, we found that in the long run foreign acquisition seem increases the NIM. Although this could be positive news since it means that the profitability increases, but this also could mean that the price for lending is increase. The implications for policy that can be drawn from the results of this study is that liberalization policy not sufficient to increase the efficiency of the banking Industry, especially in the long term. It is also important to understand more understand about financial liberalization. Financial liberalization is intended to make banking sector more open but it does not mean a banking sector with free of regulations. In fact a more open banking sector should accompanied by appropriate regulations to ensure an efficient and healthy banking sector, contributing to the development of the economy and welfare of the society.

Secondly due to the complexity of bank business nowadays, any policy analysis should rely upon different indicators and mainly upon those that reflect the whole reality of the bank output mix and explicitly consider. Moreover, banking regulators need to very careful in imposing some regulations that intended to changes banks behaviour. Since we find that different bank have different characteristics, for instance the level of risk tolerance. Thus the implication of some policies might be different through different type of banks. Finally, the regulators need to be more focus on efficiency level of banks. Since any cost that burdened by banks will be transferred to consumer in term of the higher price of financial service. For example, higher interest rate for loan. Thus, the high efficiency level of banks will maintain the intermediaries function of banks.

REFERENCES

Adams, R. B, & Ferreira, D. 2008. One share-one vote: the empirical evidence. *Review of Finance, 12 (1): 51-91.*

Adams, R. B, & Mehran, H. 2008. *Corporate performance, board structure, and their determinants in the banking industry*. Staff Reports 330, Federal Reserve Bank of New York.

Anderson, R.C., & Reeb, D.M., 2003. Founding-family ownership and firm performance: evidence from the S&P 500. *Journal of Finance*, 58: 1301– 1328.

Andrés, P., & Vallelado, E. 2008. Corporate governance in banking: The role of the board of directors. *Journal of Banking and Finance*, 32: 2570-2580.

Angbanzo, L. 1997: "Commercial bank net interest margins, default Risk, interest-rate risk, and off-balance sheet banking, *Journal of Banking and Finance*, 21: 55-87.

Arthurs, J. D., & Johnson, R. A. 2008. Managerial agents watching other agents: Multiple agency conflict regarding underpricing in IPO firms. *Academy of Management Journal*, 51 (2): 277-294.

Attig, N., Ghoul, S. E., & Guedhami, O. 2009. Do multiple large shareholders play a corporate governance role? Evidence from East Asia. *Journal of Financial Research*, 32 (4): 395-422.

Attig, N., Guedhami, O., & Mishra, D. 2008. Multiple large shareholders , control contests , and implied cost of equity. *Journal of Corporate Finance*, 14 (5): 721-737.

Barajas, A., Steiner, R. & Salazar, N. 2000. The impact of liberalization and foreign investment in Colombia's financial sector, *Journal of Development Economics,* 63: 157-196.

Barth, J., R., Caprio G., Jr., & Levine, R. 1999. *Financial regulation and performance: cross-country evidence*. Policy Research Working Paper Series, 2037. The World Bank.

Barth, J. R., Caprio, G. Jr., & Levine, R. 2001. Banking systems around the globe: do regulations and ownership affect performance and stability? In Mishkin, F.S. (Ed.), *Prudential supervision: what works and what doesn't*, 31-96**,** Chicago: University of Chicago Press).

Barth, J., R., Caprio, G., Jr., & Levine, R. 2004, Bank supervision and regulation: What works best? *Journal of Financial Intermediation*, 13: 205-248.

Bayraktar, N., & Wang, Y. 2004. *Foreign bank entry, performance of domestic banks, and sequence of financial liberalization*. World Bank Policy Research Working Paper, 3416.

Beck, T., Demirguc-Kunt, A., & Maksimovic, V. 2004. Bank competition and access to finance: international evidence. *Journal of Money, Credit, and Banking*, 36: 627-648.

Beck, T., Crivelli, J.M., Summerhill, W. 2005a. State bank transformation in Brazil – choices and consequences. *Journal of Banking and Finance*, 29:2223–2257.

Beck, T., Cull, R., Jerome, A. 2005b. Bank privatization and performance: Empirical evidence from Nigeria. *Journal of Banking and Finance*, 29: 2355–2379.

Bedo, Z., & Ács, B. 2007. The impact of ownership concentration, and identity on company performance in the US and in Central and Eastern Europe. *Baltic Journal of Management*, 2 (2): 125 – 139.

Bennedsen, M., & Wolfenzon, D. 2000. The balance of power in closely held. *Journal of Financial Economics*, 58: 113-139.

O'Brien, Yoshikawa, & Delios

Berger, A. N., Clarke, G. R., Cull, R., & Udell, G. F. 2005. Corporate governance and bank performance : A joint analysis of the static, selection, and dynamic effects of domestic, foreign, and state ownership, including domestic M&As, foreign acquisitions, and privatization. *Journal of Banking and Finance*, 29 (8-9): 2179-2221.

Berger, A. N., DeYoung, R., Genay, H. & Udell, G. 2000. *Globalisation of Financial Institutions: Evidence From Cross-Border Banking Performance*. Brookings-Wharton Papers on Financial Service, 3: 23-120.

Berger, A. N., Hasan, I., & Zhou, M. 2009. Bank ownership and efficiency in China: What will happen in the world's largest nation? *Journal of Banking and Finance*, 33 (1) 113-130.

Berle, A. A., & Means, G. C. 1932. *The Modern Corporation and Private Property*. New York: Harcourt, Brace and World.

Bloch, F., & U. Hege 2001. *Multiple Shareholders and Control Contest*. GREQAM, Universités d'Aix Marseille II et III.

Booth, J. R., Cornett, M. M., & Tehranian, H. 2002. Boards of directors, ownership, and regulation. *Journal of Banking and Finance*, 26: 1973-1996.

Bonin, J. P., Hasan, I., & Wachtel, P. 2005. Bank performance, efficiency and ownership in transition countries. *Journal of Banking and Finance*, 29: 31-53.

Boubakri, N., Cosset, J., Fischer, K., Guedhami, O. 2005. Privatization and bank performance in developing countries. *Journal of Banking and Finance*, 29:2015–2041.

Boujelbene, Y., & Zribi, N., 2009. Ownership structure and bank risk-taking: Evidence from Tunisian banks. *International Journal of Corporate Governance*, 1 (3): 259-270.

Brock, P. & Rojas-Suarez, L. (2000): "Understanding the behavior of bank spreads in Latin America. *Journal of Development Economics,* 63: 113-134.

Bruton, G., Filatotchev, I., Chahine, S., & Wright, M. 2010. Governance, ownership structure and performance of IPO firms: The impact of different types of private equity investors and institutional environments. *Strategic Management Journal*, 315: 491–509.

Buch, C., M. 2003. Information or regulation: What drives the international activities of commercial banks? *Journal of Money Credit and Banking*, 35: 851-869.

Caprio, G., Laeven, L., Levine, R. 2007. Governance and bank valuation. *Journal of Financial Intermediation*, 16: 584-617.

Carbo-Valverde, S. & Rodriguez-Fernandez, F. 2007. The Determinants of Bank Margins in European Banking. *Journal of Banking and Finance*, 31: 2043-2063.

Cerutti, E., Dell'Ariccia, G., & Martinez Peria, M. S. 2007. How banks go abroad: branches or subsidiaries? *Journal of Banking & Finance*, 31: 1669–1692

Child, J., & Rodrigues, S. B. 2003. Corporate governance and new organizational forms: Issues of double and multiple agency. *Journal of Management*, 7 (4): 337-360.

Classens, S., & Peters, R.K., 1997. State enterprise performance and soft budget constraints. *Economics of Transition*, 5: 305–322.

Claessens, S., Demirguc-Kunt, A. & Huizinga, H. 2001. How does foreign entry affect domestic banking markets? *Journal of Banking and Finance*, 25: 891-911. .

Claessens, S., Djankov, S., Lang, L. 2000. The separation of ownership and control in East Asian corporations. *Journal of Financial Economics*, 58: 81–112.

Claessens, S., Djankov, S., Fan, J., Lang, L. 2002. Disentangling the incentive and entrenchment effects of large shareholdings. *Journal of Finance*, 57: 2741–2771.

Claeys, S. & Vander Vennet, R. 2008. Determinants of bank interest margins in Central and Eastern Europe: a comparison with the West. *Economic Systems,* 32: 197-216.

Clarke, G.R.G., Cull, R., D'Amato, L., & Molinari, A., 2000. On the kindness of strangers? The impact of foreign Bank entry on domestic banks in Argentina. In S. Claessens & M. Jansen (Eds.), *Internationalization of financial services: issues and lessons for developing Countries*: 331-354. London: Kluwer Law International.

Clarke, G.R.G, Cull R., Peria, M. S. M. 2002. *Does foreign bank penetration reduce access to credit in developing countries? Evidence from asking borrowers*. Policy research working paper No. 2716, World Bank, Washington.

Clarke, G.R.G., Cull, R., & Shirley, M.M. 2005. Bank privatization in developing countries: A summary of lessons and findings. *Journal of Banking and Finance*, 29: 1915–1930.

Coleman, A. D. F., Esho, N., Sharpe, I. G. 2002. *Do Bank Characteristics Influence Loan Contract Terms?* Working Paper 2002-01, Australian Prudential Regulation Authority.

Colpan, A. M., Yoshikawa, T., Hikino, T., & Del Brio, E. B. 2011. Shareholder heterogeneity and conflicting goals: Strategic investments in the Japanese electronics industry. *Journal of Management Studies,* 48 (3): 591-618.

Connelly, B. L., Hoskisson, R. E., Tihanyi, L., & Certo, S. T. 2010. Ownership as a Form of Corporate Governance. *Journal of Management Studies*, 47(8): 1-29.

Creed, A. 1999. Everything not in moderation: Indonesia's excess the undermining of the Indonesian banking system. *The Monitor: Journal of International Studies*, 6 (1).

Crespi, R., Garcia-Cestona, M.A., & Salas, V. 2004. 'Governance mechanisms in Spanish banks: does ownership matter? *Journal of Banking and Finance*, 28 (10): 2311–2330.

Cronqvist, H. & Fahlenbrach, F. 2009. Large shareholders and corporate policies. *The Review of Financial Studies*, 22 (10): 3941-3976.

Cucculelli, M. 2009. *Owner identity and firm performance: evidence from European companies*. Working Papers no.24, Mo.Fi.R

Dages, G., Linda, G., & Kinney, D., 2000. *Foreign and domestic bank participation in emerging markets: Lessons from Mexico and Argentina*. Federal Reserve Bank of New York Economic Review, 17–36.

Daily, C. M., Dalton, D. R., & Rajagopalan, N. 2003. Governance through ownership: centuries of decades of research. *Academy of Management Journal*, 462: 151-158.

Dalton, D. R., Daily, C.M., Certo, S. T., & Roengpitya, R. 2003. Meta-Analyses of financial performance and equity: fusion or confusion? *Academy of Management Journal*, 461: 13-26.

David, P., O'Brien, J. P., Yoshikawa, T., & Delios, D. 2010. Do shareholders or stakeholders appropriate the rents from corporate diversification? The influence of ownership structure. *Academy of Management Journal*, 53: 636–54.

Detragiache, E., Tressel, T., & Gupta, P. 2006. *Foreign Banks in Poor Countries: Theory and Evidence*. Working Paper, WP/06/18, International Monetary Fund, Washington.

Demirguc-Kunt, A. & Huizinga, H. 2000. Determinants of commercial bank interest margins and profitability: some international evidence, *World Bank Economic Review*, 13: 379-408.

Demirgüç-Kunt, A., & Detragiache, E. 2005. *Cross-country empirical studies of systemic bank distress: a survey*. Policy Research Working Paper No. 3719, The World Bank.

Demsetz, H., & Lehn, K. 1985. The structure of corporate ownership: causes and consequences. *Journal of Political Economy*, 936: 1155-1177.

Demsetz, H., & Villalonga, B. 2001. Ownership Structure and Corporate Performance. *Journal of Corporate Finance*, 73: 209-233.

Demsetz, R.S., Saidenberg, M.R., & Strahan, P.E., 1997. *Agency problems and risk taking at banks*. Staff Reports, No. 29. Federal Reserve Bank of New York.

DeYoung, R. & Nolle, D.E. 1996. Foreign-owned banks in the United States: earning Market share of buying it? *Journal of Money, Credit, and Banking*, 28(4): 622-36.

Dharwadkar, R., George, G. & Brandes, P. 2000. Privatization in emerging economies: an agency theory perspective. *Academy of Management Review*, 25 (3): 650-69.

Dinç, S. 2005. Politicians and banks: Political influences on government-owned banks in emerging markets, *Journal of Financial Economics*, 77: 453-479.

Djankov, S., 1999. The enterprise isolation program in Romania. *Journal of Comparative Economics*, 27: 281–293.

Djankov, S. 2000. *Corporate performance in the East Asian financial crisis*. Research working no. 151: 23-46, World Bank, Washington.

Dlugosz, J., Fahlenbrach, R., Gompers, P., & Metrick, A. 2006. Large blocks of stock: prevalence, size, and measurement. *Journal of Corporate Finance*, 12: 594–618.

Douma S, George R, & Kabir R. 2006. Foreign and domestic ownership, business groups, and firm performance: evidence from a large emerging market. *Strategic Management Journal*, 27 (7): 637–657.

Drakos, K., 2002. The efficiency of the banking sector in Central and Eastern Europe. *Russian and East European Finance and Trade*, 38 (March–April): 31–43.

Eisenhardt K. M. 1989. Agency theory: an assessment and review. *The Academy of Management Review*, 14 (1): 57-74.

Enoch, C. 2000. *Interventions in bank during banking crises: the experience of Indonesia*. IMF Policy Discussion Paper no. 2. International Monetary Fund, Washington DC.

Enoch, C., Baldwin, B., Frécaut, O., & Kovanen, A. 2001. *Indonesia: Anatomy of a banking crisis two Years of living dangerously 1997–99*. IMF Working Paper no. 52, International Monetary Fund.

Faccio, M., & Lang, L. H. 2002. The ultimate ownership of Western European. *Journal of Financial Economics*, 65: 365-395.

Faccio, M., Lang, L. H., & Young, L. 2009. Pyramiding vs leverage in corporate groups: International evidence. *Journal of International Business Studies*, 41 (1): 88-104.

Faccio, M., Lang, L. H., & Young, L. 2001. Dividends and expropriation. *The American Economic Review*, 91 (1): 54-78.

Filatotchev, I., & Allcock, D. 2010. Corporate governance and executive remuneration: a contingency framework. *The Academy of Management Perspectives*, 241: 20-33.

Filatotchev, I., Lien, Y., & Piesse, J. 2005. Corporate governance and performance in publicly listed, family-controlled firms: Evidence from Taiwan. *Asia Pacific Journal of Management*, 223: 257–283.

Fries, S., & Taci, A. 2005. Cost efficiency of banks in transition: evidence from 289 banks in 15 post-communist countries. *Journal of Banking and Finance*: 29, 55–81.

Galindo, A., & Micco, A. 2004. Do state owned banks promote growth? Cross-country evidence for manufacturing industries. *Economics Letters*, 84(3): 371-376.

García-cestona, M. A. 2008. 'Multiple goals and ownership structure: effects on the performance of Spanish savings banks'. *European Journal of Operational Research*, 187 (2): 582-599.

Gedajlovic, E., & Shapiro, D. M. 2002. Ownership structure and firm profitability in Japan. *The Academy of Management Journal*, 45 (3): 565-575.

Gerschenkron, A. 1962. *Economic Backwardness in Historical Perspective*. *Massachusetts:* Harvard University Press, Cambridge.

Goldberg. L. G., & Saunders, A. 1981. The growth and organizational form of foreign banks in the U. S. *Journal of Money Credit and Banking*, 13: 365-74.

Gomes, A., & Novaes, W., 2001. *Sharing of control as a corporate governance mechanism*. *PIER Working paper No.* 01- 029, University of Pennsylvania Law School.

Grigorian, D., & Manole, V. 2002. *Determinants of commercial bank performance in transition: An application of data envelopment analysis*. World Bank Policy Research Working Paper, 2850.

Gunasekarage, A., Hess, K., & Jie, A. 2007. The influence of the degree of state ownership and the ownership concentration on the performance of listed Chinese firms. *Research in International Business and Finance*, 21: 379-395.

Haber, S. 2005. Mexico's experiments with banking privatization and liberalization, 1991-2003. *Journal of Banking and Finance*, *29* (8-9): 2325-53.

Hart, O. 2010. Corporate governance: some theory and implications. *The Economic Journal*, 105: 678-689.

Hasan, I., Marton, K., 2003. Development and efficiency of the banking sector in a transitional economy. *Journal of Banking and Finance*, 27: 2249–2271.

Hellmann, T. F., Murdock, K. C., and Stiglitz, J. E. 2000. Liberalization, moral Hazard in banking, and prudential regulation: are capital requirements enough? *American Economic Review*, 90(1): 147–165.

Hendrobudiyanto. 1994. Bank soundness requirements: a central bank perspective. In McLeod, R., H. (Ed.), *Indonesia Assessment 1994: Finance as a Key Sector in Indonesia's Development*. Singapore: Institute of Southeast Asian Studies and Canberra: Research School of Pacific and Asian Studies, Australian National University.

Ho, T. and Saunders, A. (1981): "The Determinants of Bank Interest Margins: Theory and Empiri-cal Evidence," *Journal of Financial and Quantitative Analysis*, 16(4): 581-600.

Holderness, C. G. 2009. The myth of diffuse ownership in the United States. *Review of Financial Study*, 22(4): 1377-1408.

Hoskisson, R. E., Hitt, M. A., Johnson, R. A., & Grossman, W. 2002. Conflicting voices: the effects of institutional ownership heterogeneity and internal governance on corporate innovation strategies. *The Academy of Management Journal*, 454:697-716.

Iannotta, G., Nocera, G., & Sironi, A. 2007. Ownership structure, risk and performance in the European banking industry. *Journal of Banking and Finance*, 31 (7): 2127-2149.

Jacquemin, A.P., & Berry, C.H. 1979. Entropy measure of diversification and corporate growth. *Journal of Industrial Economics*, 274: 359-369.

Jemric, I., & Vujcic, B., 2002. Efficiency of banks in Croatia: a DEA approach. *Comparative Economic Studies,* 44: 169-193.

Jensen, M., & Meckling, W. 1976. Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 34: 305-360.

Jones, D., Kalmi, P., & Mygind, N. 2005. Choice of ownership structure and firm performance: evidence from Estonia, *Post-Communist Economies, Taylor and Francis Journals*, 17(1): 83-107.

Karas, A., & Pyle, W., Schoors, K. 2009. *Sophisticated discipline in a nascent deposit market: evidence from post-communist Russia*. Oxford Economic Papers (forthcoming).

Kim, K. A., Lee, S., & Rhee, S. G. 2007. Large shareholder monitoring and regulation: The Japanese banking experience. *Journal of Economics and Business*, 59: 466–486

Konijn, S. J. J., Kräussl, R., & Lucas, A. 2010. Blockholder dispersion and firm value. *Journal of Corporate Finance*, 17: 1330–1339.

Kraft, E., Tirtiroglu, D., 1998. Bank efficiency in Croatia: A stochasticfrontier analysis. *Journal of Comparative Economics*, 26: 282–300.

Kwan, S.H., 2004. *Risk and return of publicly held versus privately owned banks*. Economic Policy Review, 97-107, Federal Reserve Bank of San Francisco.

Laeven, L. 2001. Insider lending and bank ownership: the case of Russia. *Journal of Comparative Economics*, 29(2): 207-229.

Laeven, L., & Levine, R. 2008. Complex ownership structures and corporate valuations. *The Review of Financial Studies*, 21 (2), 579-604.

Laeven, L., & Levine, R. 2009. Bank governance, regulation and risk taking. *Journal of Financial Economics*, 93(2): 259-275.

La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. 1999. Corporate ownership around the world. *The Journal of Finance*, 24 (2): 471-517.

La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. 2002a. Government ownership of banks. *Journal of Finance*, 57 (1): 265–301.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W., 2002b. Investor protection and corporate valuation. *Journal of Finance*, 57 (3): 1147–1170.

La Porta, R., López-de-Silanes, F., & Zamarripa, G. 2003. Related Lending. *The Quarterly Journal of Economics*, 118(1): 231-268.

Lehner, M., & Schnitzer, M. 2008. Entry of foreign banks and their impact on host countries. *Journal of Comparative Economics,* 36 (3): 430-452.

Lemmon, M. L., & Lins, K. V. 2003. Ownership structure, corporate governance , and firm value : Evidence from the East Asian financial crisis. *The Journal of Finance*, 58 (4), 1445-1468.

Lerner, E. 1981. The determinants of banks interest margins: theory and empirical evidence. *Journal of Financial and Quantitative Analysis,* 26:601-602.

Levine, R. 2004. *The corporate governance of banks: a concise discussion of concepts and evidence*. Policy research working paper No. 3404, World Bank, Washington

Lin, X.C., & Zhang, Y. 2008. Bank ownership reform and bank performance in China. *Journal of Banking and Finance*, forthcoming.

López-de-Foronda, O., López-Iturriaga, F., & Santamaría-Mariscal, M. S. 2007. Ownership structure, sharing of control and legal Framework: International evidence. *Corporate Governance*, 15: 1130-1143.

Majnoni, G., Shankar, R., & Varhegyi, E. 2003. *The dynamics of foreign bank ownership - evidence from Hungary*. Policy Research Working Paper Series 3114, The World Bank.

Martinez Peria, M. S., & Mody, A. 2004. How foreign participation and market concentration impact bank spreads: evidence from Latin America. *Journal of Money, Credit and Banking,* 36(3): 511-537.

Maudos, J., & Fernandez de Guevara, J. 2004. Factors explaining the interest margin in the banking sectors of the European Union. *Journal of Banking and Finance,* 28: 2259-2281.

Maury, B. 2006. Family ownership and firm performance: empirical evidence from Western European corporations. *Journal of Corporate Finance,* 12: 321– 341.

Maury, B., & Pajuste, A. 2005. Multiple block shareholders and firm value. *Journal of Banking and Finance*, 29: 1813-1834.

Megginson, W. L., 2005. *The financial economics of privatization* (1st ed). New York: Oxford University Press.

Mian, A., 2006. Distance constraints: the limits of foreign lending in poor economies. *Journal of Finance*, 61 (3): 1465–1495.

Micco, A., & Panizza, U., 2006. Bank ownership and lending behaviour. *Economic Letters*, 93 (2): 248-254.

Micco, A., Panizza, U., & Yañez, M. 2004. *Bank ownership and performance*. Research Department Working Paper 518, Research Department of Inter-American Development Bank, Washington DC.

Micco, A., & Panizza, U., Yanez, M., 2007. Bank ownership and performance: Does politics matter? *Journal of Banking and Finance*, 31: 219-241.

Morck, R., David Stangeland, D., & Yeung, B. 2000. Inherited wealth, corporate control, and economic growth: The Canadian Disease," in Morck, R (ed.), *Concentrated Corporate Ownership*. USA: Randall National Bureau of Economic Research Conference Volume., University of Chicago Press.

Morck, R., Wolfenzon, D., & Yeung, B. 2005. Corporate Governance, Economic Entrenchment, and Growth. *Journal of Economic Literature*, 433: 655-720.

Munari, F., Oriani, R., & Sobrero, M. 2010. The effects of owner identity and external governance systems on R&D investments: A study of Western European firms. *Research Policy*, 39: 1093-1104.

Nakane, M., & Weintraub, D., 2005. Bank privatization and productivity: evidence from Brazil. *Journal of Banking and Finance*, 29: 2259– 2289.

Nasution, A. 1996. *The banking system and monetary aggregates following financial sector reforms: lessons from Indonesia*. UNU/WIDER Research for Action no. 27. UNU World Institute for Development Economics Research, Helsinki.

Nikiel, E.M., & Opiela, T.P., 2002. Customer type and bank efficiency in Poland: implications for emerging banking market. *Contemporary Economic Policy*, 20, 255– 271.

Pangestu, M., & Habir, M. 2002. *The boom, bust, and restructuring of Indonesian banks*. Working Paper, no. 02/66, International Monetary Fund, Washington.

Peng, M.W. 2004. Outside directors and firm performance during institutional transitions. *Strategic Management Journal*, 255: 453-71.

Peng, M. W., Buck, T. & Filatotchev, I. 2003. Do outside directors and new managers help improve firm performance? An exploratory study in Russian privatization. *Journal of World Business*, 38 (4): 348-360.

Rhoades, S., 1998. The efficiency effects of bank mergers: an overview of case studies in nine mergers. *Journal of Banking and Finance*, 22 : 273–291.

Ruthenberg, D., & Elias, R. 1996. Cost economies and interest rate margins in a unified European banking market. *Journal of Economics and Business,* 48: 231-249.

Sapienza, P. 2004. The effects of government ownership on bank lending. *Journal of Financial Economics*, 72 (2): 357-384.

Saunders, A., & Schumacher, L. 2000. The determinants of bank interest margins: an international study. *Journal of International Money and Finance,* 19 :813-832.

Saunders, A., Strock, E., & Travlos, N., 1990. Ownership structure, deregulation and bank risk taking. *Journal of Finance*, 45: 643-654.

Sato, Y. 2005. Bank restructuring and financial reform in Indonesia. The *Developing Economies*, XLIII (1): 91–120.

Shehzad, C. T., De Haan., J., & Scholtens, B. 2010. The impact of bank ownership concentration on impaired loans and capital adequacy. *Journal of Banking and Finance*, 34 (2): 399-408.

Shleifer, A., & Wolfenzon, D. 2002. Investor protection and equity markets. *Journal of Financial Economics*, 66: 3 –27.

Shleifer, A., & Vishny, R. W. 1986. Large shareholders and corporate control. *The Journal of Political Economy*, 94 (3:I): 461-488.

Shleifer, A and Vishny, R., W. 1997. A Survey of Corporate Governance. *Journal of Finance Volume*, 52 (2): 737-783.

Singh, M., Davidson III, W. N. 2003. Agency costs, ownership structure and corporate governance mechanisms. *Journal of Banking and Finance,* 27: 793-816.

Stulz, R., 1988. Managerial control of voting rights: Financing policies and the market for corporate control. *Journal of Financial Economics*, 20: 25-54.

Tirole, J., 2006. *The Theory of Corporate Finance* (1st ed). New Jersey: Princeton University Press.

Pedersen, T., & Thomsen, S. 2003. The causal relationship between ownership concentration, owner identity and market valuation among the largest European companies. *Journal of Management and Governance*, 71: 27-55.

Pedersen, T., & Thomsen, S. 2000. Ownership structure and economic performance in the largest European firms. *Strategic Management Journal*, 216: 689-705.

Peek, J., Rosengren, E., & Kasirye, F. 1999. The poor performance of foreign bank subsidiaries: were the problems acquired or created? *Journal of Banking and Finance*, 23:579–604.

Unite, A., & Sullivan, M. 2003. The effect of foreign entry and ownership structure on the Philippine domestic banking market. *Journal of Banking & Finance*, 27: 2323-2345.

Vander Vennet R. 1996. The effect of mergers and acquisitions on the efficiency and profitability of EC credit institutions, *Journal of Banking and Finance*, 20 (9): 1531-1558.

Villalonga, B., & Amit, R. 2006. How do family ownership, control, and management affect firm value? *Journal of Financial Economics*, 80 (2): 385-417.

Vining, A. R., & Boardman, A. E. 1992. Ownership versus competition: Efficiency in public enterprise. *Public Choice*, 732: 205-39.

Volpin, P. F. 2002. Governance with poor investor protection: evidence from top executive turnover in Italy. *Journal of Financial Economics*, *64*: 61-90.

Weill, L. 2003. Banking efficiency in transition economies: The role of foreign ownership. *Economics of Transition*, 11: 569–592.

Williams, B. 2007. Factors determining net interest margins in Australia: domestic and foreign Banks. *Financial Markets, Institutions and Instruments,* 16(3): 145-165.

Williams, J., & Nguyen, N., 2005. Financial liberalization, crisis and restructuring: A comparative study of bank performance and bank governance in South East Asia. *Journal of Banking and Finance*, 29: 2119–2154.

Woidtke, T. 2002. Agents watching agents? : Evidence from pension fund ownership and firm value. *Journal of Financial Economics*, 63: 99-131.

Young, M. N., Ahlstrom, D., Bruton, G. D., & Chan, E. 2001. The resource dependence, service, and control functions of boards of directors in Hong Kong and Taiwanese firms. *Asia Pacific Journal of Management*, 18: 233–43.

Young, M. N., Peng, M. W., Ahlstrom D., Bruton G. D., & Jiang, Y. 2008. Corporate governance in emerging economies: A Review of the Principal-Principal perspective. *Journal of Management Studies*, 45 (1): 196-220.